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Comparison of the Personal Income Tax in Selected Countries

Komparace osobní důchodové daně ve vybraných zemích

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The declaration

"Herewith I declare that I elaborated the entire thesis, including all annexes independently."

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Contents

1 Introduction

Taxes are levied in almost every country of the world. The main purpose is to raise revenue for government expenditures, although they serve other purposes as well. We can say tax is one of the basic characteristics of a country. Income tax is the tax levy imposed on individuals and corporations. Personal income tax is a tax levied according to law on the remuneration obtained by individuals for providing labour services. As an important part of taxation, personal income tax plays an important role in increasing government fiscal revenue, regulating income distribution of residents, and optimizing resource allocation. Personal income tax has a direct impact on the people's economic living standards, and it is related to the vital interests of each taxpayer. So, analysing the personal income tax has important practical significance.

Personal income tax is one of the current social hotspots. The reason is that the income gap between different groups is constantly expanding, and people need it to act more effectively as a mean of redistribution and promote better social development.

The goal of this thesis is to compare the personal income tax of selected types of taxpayers in selected countries with focus on income in Austria, Belgium, Finland, France and Germany. Especially considering that these individual taxpayers have different family structures and family situation.

This thesis consists five chapters to analyse the personal income tax of selected taxpayers in selected countries. The first chapter is introduction. The second chapter is description of the basic knowledge of taxation. First, there is a briefly description of the history of taxation according to the timeline. Then, we will introduce the characteristic of taxation, some basic taxation terminology, the relation of tax and fiscal policy, tax principals and tax classification. And last part will focus on the description of the personal income tax, which include the history, some basic terms, calculation and the positives and negatives of personal income tax.

The third chapter is the description of the personal income tax legislation in the selected countries. We mainly focus on the tax payment situation in 2018 of Austria, Belgium, Finland, France and Germany. Then we will compare the differences of these five countries which include tax subject and tax object, tax deductions, tax credits and allowance, social security contributions, tax rate, other special tax and tax payment.

The fourth chapter is a practical part of the thesis and is focused on comparing tax burden and tax liability of personal income tax of selected taxpayers among these five countries. The first subchapter is the basic calculation of tax burden and tax liability. The second subchapter is the comparison of some important tax items and the last subchapter mainly focus on the comparison of tax burden of different taxpayers.

The last chapter is conclusion. We will make a systematic summary of our calculation, comparison and the conclusion of the whole thesis.

2 Basic Aspects of Personal Income Tax

In this chapter, some basic knowledge about taxation will be introduced in different aspects. We will introduce the history, characteristics, some basic terminologies, the fiscal policy, the tax principles, the classification and some indicators of tax. Then we will introduce the personal income tax in detail, especially the history, tax subject, tax object, tax base, tax deductions, tax credits, personal income tax rate, the way of calculation and the positives and negatives of personal income tax.

2.1 The History of Taxation

The history of taxation has thousands of years. The earliest known tax records, dating from approximately six thousand years B.C., are in the form of clay tablets found in the ancient city-state of Lagash in modern day Iraq. As *Samuel Blankson (2007)* introduced in his book, *the Greeks, Egyptians and Romans enforced tax policies that they used to fund centralized governments.* Ancient Chinese societies also levied taxes on their citizens. In the ancient slavery of ancient China, the Xia Dynasty already had the prototype of tax.

In slave society, tax revenues are only occasional source of monarch´s revenues. The civilian give tax occasionally to monarch to seek shelter. At that time the tax is in fees form or natural form such as slaves and kettles. In feudalism, government use taxation to finance wars and finance monarch´s activities. The tax is also in cash or natural form. The tax had been more perfect, and the forms were diversified. In capitalism, tax is used to minimalize government steps in economics and increase the state role. Tax system arose in this time. Many kinds of taxation approach arose such as Keynesian approach and neoclassic approach. There was a big discussion about rate of direct and indirect tax in economics.

Till now, taxation has developed thousands of years. It becomes more perfect and it should be more perfect in the future. *Taxation is the price which civilized communities pay for the opportunity of remaining civilized (Oliver Wendell Holmes, 1927).* The development of the society and economy requires the existence of taxes. The history has illustrated the important role of taxation in the country's economic life and social civilization.

2.2 The Characteristics of Taxation

Taxation have always been in our lives; they are levied in almost every country of the world. As for government, it is a tool by which governments finance their expenditure by imposing charges on citizens and corporate entities. Governments use taxation to encourage or discourage certain economic decisions. As for individual, it is a payment without purpose and without providing equivalent amount by public budget. As *Stephen Smith (2015) defined the taxation, tax are compulsory payments, exacted by the state, that do not confer any direct individual entitlement to specific goods or services in return.* The definition illustrates the characteristics of taxation in general.

The first characteristic of taxation is that it is an obliged payment. Everyone must pay taxes because it is compulsory. No one can refuse to pay a tax even if he does not get benefit from public services that the government provides. *In this world nothing can be said to be certain, except death and taxes (Benjamin Franklin, 1789).* Also, *as argued by Stephen Smith (2015, p.4), taxation involves compulsion, which crucially distinguishes taxation from most other activities in modern democracies, it distinguish tax from the prices, fees, or charges that could be levied on the sale of goods and services by the state or state enterprises.* The compulsory characteristic make taxation special.

The second is no target. The taxation is not collected for one specific thing, such as a particular public service, the sale of public property, or the issuance of public debt. While taxes are presumably collected for the welfare of taxpayers as a whole, it is just a revenue of government. As *Stephen Smith (2015)* said in his book, *tax revenues pay for public services- roads, the courts, defence, welfare assistance to the poor and elderly- and, in many countries, much of health care and education too.* In other words, taxation is collected for anything that it can do.

It leads to the third characteristic: the revenue. *The power of taxing people and their property is essential to the very existence of government (James Madison,1788).* In other words, the government revenue is the lifeline of every modern state. They are the prerequisite for its capacity to act. The mobilization of own revenues is pivotal to ensure independent governments and policies. As we know, taxation income is the main source of government revenue. Government use taxation revenue to provide service for all citizens. Such as the expenditure on the defence of the country, on maintenance of law and order, provision of social services and so on. *Also, Stephen Smith (2015, p.11) mentioned, in many countries, especially in Europe, 'welfare state' spending has grown, providing services and income to the poor, the disabled, the sick, and the elderly.* The tax revenue has made possible growth of government even where there is no pressing need to expand provision of public goods that can be financed only through taxation.

The fourth characteristic is non-equivalent. It doesn't mean how many taxes you pay; you can get equivalent benefit. There is no direct relationship between the payment of tax and direct benefits. Though the payments are commonly compulsory, the link to benefits is sometimes quite weak. The benefits are given to all the people, no matter they are taxpayers or non-taxpayers.

The last characteristic is irreversible. Tax is an obliged predetermined amount. Once you paid, you can't get back. This is because tax is regulated by law, it is a formal and official activity.

2.3 Basic Taxation Terminology

In this part, we will introduce ten basic terminologies to help us learn about tax more specifically.

Tax Subject

A tax subject is a person or an entity who is legally obliged to tolerate or pay tax. The tax subject includes taxpayer and payer of tax. The taxpayer is the holder of tax burden. It can be a person, a corporate or a consumer. The payer of tax is the subject that give the tax to tax authority. For example, the payer of tax for consumption tax may be the shop.

Tax Object

The tax object is the object that need to pay the tax. In general, the tax object includes income tax, consumption tax, property tax and poll tax.

Income tax can be divided into personal income tax and corporate income tax. The personal income tax is a tax imposed on individuals with respect to their income. It will be introduced in chapter 2.8 in detail. Corporate income taxes are levied by federal or state governments on business profits. The consumption tax is a tax levied on consumption spending on goods and services. The property tax is levied by the governing authority of the jurisdiction in which the property is located. For example, the most common property tax is real estate tax. The poll tax were important sources of revenue for many governments from ancient times until the 19th century. It is a tax levied as a fixed sum on every liable individual.

Tax Base

Tax base is the basic value need to pay tax. The tax base is derived from tax object. *As Stephen Smith (2015, p.5) defined the tax base, it is the aspects of economic activity on which the tax will be charged, such as income, spending, or the value of property- and will specify how an individual's tax liability will be calculated, in a clear and predictable way.* Usually it is important to identify the unit of measure of tax base.

Tax Exemption

Tax exemption are income that not covered by tax. It aims to enhance certainty of taxpayers. Sometimes there are limits. The examples are pension, scholarship and social benefits that cover sickness payment.

Tax Deduction

It is similar to tax exemption, but they have difference. In tax deduction, the amount is first included in the income of the taxpayer and then the deduction is allowed as per the rules, in full or part or when certain conditions are satisfied.

Deduction means subtraction. It is an amount that is eligible to reduce taxable income. Exemption means exclusion. If certain income is exempt from tax, then it will not contribute to the total income of a person.

Deductible Items from Tax Base

Deductible items from tax base are some special deductible items based on the taxpayers' situation. They are different from tax relief because they are deducted from tax base not the tax liability. These items depend on the specific situation of taxpayer. It may encourage certain activities of taxpayers.

Tax Relief

Tax relief is also called tax credit, it is the item or amount that reduce the tax payable. Usually, we have tax allowance, tax credit to reduce tax value. It is intended to reduce the tax liability of an individual or business entity. For example, the tax credit for dependent child aims to support the fertility rate.

Tax Rate

Tax rate is the percentage at which a corporation or an individual is being taxed at. We can classify tax rate by two ways. The first way is according to tax object and tax subject. The tax rate for tax object and tax subject can be different or uniform. The second way is according to the relationship to tax base. We have fixed tax rate and relative tax rate.

The relative tax rate can be classified into progressive tax rate, regressive tax rate and linear tax rate. Progressive tax rate means with tax base increase, the tax rate will increase. The progressive tax rate also can be divided into sliding progression and stepwise progression. The regressive tax rate means with tax base increase, the tax rate will decrease. The linear tax rate shows the tax base and tax have a linear relationship. With tax base increase, the tax will also increase *(JAMES, R. Simon and Christopher NOBES, 2018)*.

A fixed tax or flat tax is a tax system with a constant marginal rate, usually applied to individual or corporate income. If the tax system is burdensome, people will dodge it. The complex tax system will make more people seek to avoid taxes. The best way to fight tax avoidance is with simplicity. A true flat-rate tax is a system of taxation where one tax rate is applied to all personal income with no deductions. A marginal flat tax refers to the tax that deductions are allowed, a 'flat tax' is a progressive tax with the special characteristic that, above the maximum deduction, the marginal rate on all further income is constant. Flat tax with limited deductions is tax that allow deductions for a very few items, while still eliminating most existing deductions. Charitable deductions and home mortgage interest are the most discussed examples of deductions that would be retained, as these deductions are popular with voters and are often used. In 1994, Estonia became the first country in Europe to introduce a so-called "flat tax", replacing three tax rates on personal income, and another on corporate profits, with one uniform rate of 26% *(The Economist Group Limited, London, 2005)*. Simplicity itself.

Tax Liability

The tax liability is the total amount of tax you are responsible for paying to the tax authority. In other words, it is the final amount that need to be paid and sent to tax office. As we have mentioned, the tax liability is tax base multiplied by tax rate.

Tax Return

Tax return is a document sent to federal or state authorities that declares taxpayer's liability for being taxed based on yearly income. Taxpayer are required to report information on tax return by specific tax forms. Usually there are three parts in tax return (in case of personal income tax): income, deductions and tax credit.

Payment of Tax

There are two ways to pay the personal income tax. One is existing of withholding tax and the another is lump-sum tax.

A withholding tax is an income tax to be paid to the government by the payer of the income rather than by the recipient of the income. The tax is thus withheld or deducted from the income due to the recipient. In most jurisdictions, withholding tax applies to employment income.

A lump-sum tax is the tax a one-time payment from producers to the government. Contrasts with a per unit tax, which is levied on every unit of output produced, thus increases in size as output increases. A lump sum tax increases firms' average fixed cost, and thus average total cost, but has no effect on marginal cost or average variable cost.

2.4 Tax in Fiscal Policy

Fiscal policy is an instrument that government use to influence economic processes. The government use fiscal policy to provide enough resources to finance public expenses. By using fiscal policy, government can achieve the macroeconomic aggregates.

There are four main functions of fiscal policy. The first is allocation function. Government use fiscal policy to accumulate funds and finance production of public goods. They can also use these capitals to eliminate the negative externalities of some other activities. The second function is redistribution function. Government can use fiscal policy to balance public budget and eliminate the gap between the rich and the poor. The third function is fiscal function. Government use the collected capital to finance expenses of government and municipal authorities, maintaining the basic activity of government. The fourth function is stabilization function. Government can use expansionary fiscal policy or restrictive fiscal policy in appropriate time to stabilize the economy.

One useful way to view the purpose of taxation, attributable to American economist *Richard A. Musgrave (1939)*, *is to distinguish between objectives of resource allocation, income redistribution, and economic stability.* We can see the purpose of taxation as Richard A. Musgrave mentioned are highly consistent with the function of fiscal policy.

The tax system includes the sum of all taxes that exist in the state, other revenues of public budgets such as social security contribution, and charges of fiscal nature such as administrative fees, local fees and so on. A good tax system can lead to a suitable system of incomes redistribution and to minimize tax burden and administrative cost, it also can support stabilization function of public finance. The tax policy is the practical application of rules and principles in the creation and functioning of individual tax systems. As we know, the total tax liability is the sum of all payments to which the entity must contribute to the budget. The overall tax burden is related to the indicator: tax quota. The tax quota (TQ) is level of taxation in a certain economy. It is calculated by the total tax revenues divided by GDP. Tax quota can reflect the historical development of a country.

Above all, the tax is a very important tool of fiscal policy for the development of a country. *As Stephen Smith (2015) mentioned, tax plays the fundamental role in our society, our lives, and our living standards.* A good tax system can make economy operate stably and healthy.

2.5 Tax Principles

As we have mentioned, a good tax system will have a positive impact to the development of a country. There are some tax principles to make the tax system better.

The 18th-century economist and philosopher *Adam Smith* attempted to systematize the rules that should govern a rational system of taxation in his book *The Wealth of Nations (1776, Book V, chapter 2)*. He mentioned good taxes meet four major criteria. *(1) proportionate to incomes or abilities to pay (2) certain rather than arbitrary (3) payable at times and in ways convenient to the taxpayers and (4) cheap to administer and collect.* Here we reinterpret and summarise them.

The first is to overcome the inefficiencies of the market system in the allocation of economic resources and make administrative simplicity. The most important is to reduce the direct and indirect administrative cost. Too much administrative cost can waste social resources.

The second is to reduce negative effects. Such as environmental pollution. The taxation can reduce the environment pollution by increasing the cost of bad behaviour.

The third is for fairness. *What people really want is fairness. They want people paying their fair share of taxes (Barack Obama, 2007).* Taxation should satisfy the benefit principle and payment ability principle. According to *Knut Wicksell (1896) and Erik Lindahl (1919), the benefit principal means the taxes serves as the price function, they help determine what activities the government will undertake and who will pay for them.* The ability-to-pay principle requires that the total tax burden will be distributed among individuals according to their capacity to bear it, taking into account all of the relevant personal characteristics. It can also redistribution of income and wealth to make the society fairer.

The fourth is suitable influencing of macroeconomic aggregates and flexibility. The tax should be flexible enough to meet the different situation of the economy. It must help the fiscal policy to fulfil the allocation, redistribution, stabilization and fiscal function. As we know, taxation has an important role to play in each of these functions of government.

The last is to have perfection of legal and political transparency. Transparency is a fundamental characteristic of modern democracies. It helps ensure the citizens' control of and participation in public matters. It promotes accountability, combats corruption, and helps eliminate arbitrariness. In this way it facilitates greater judicial independence and enhances public confidence. The open operation increases flow of information, enabling the public to learn about its performance and rulings. A transparency tax system can make taxpayer be more convinced and be willing to pay voluntary.

Governments can use many methods to raise resources, but taxation is usually the most importance source of government revenue. If taxation can comply with these principles, it can be a better tool of government to performing duties and promote social development.

2.6 Tax Classifications

A tax is a compulsory levy made by public authorities for nothing is received directly in return. It is possible to classify taxes in many different ways. When comparing taxes from one country to another, such classification is very useful. In this part, we will classify tax by using several different criterial in eight ways.

The first way is according to the possibility to identify tax subject, we can divide tax into direct tax and indirect tax. If the tax is actually assessed and collect from the individuals who are intended to bear it, it is called a direct tax. In direct taxes, taxpayer pays taxes from the amount of income and can't be transferred to another entity. It is possible to identify tax subject. Such as income taxes or property taxes. If the tax is collected from business and may cause the price to customers rise, it is an indirect tax. In indirect taxes, the taxes without respect of income situation of economic subject and can be transferred to other subject thanks to price increasing. It is not possible to identify taxpayers, only a subject who pays tax to state can be defined. Such as consumption tax.

The second way is according to the object of tax. We can divide tax to income tax, consumption tax, property tax and poll tax. It is obvious to identify the tax object from this classification.

The third way is according to tax subject. The tax subject can be individual person, household, married couple, all members of a household or a firm. Different tax subject has different way to pay tax.

The fourth way is according to the payment ability of taxpayer. For person, the tax is payed according to payment ability of taxpayer, such as personal income taxes. Another way is to in rem. The tax is payed not related to a taxpayer payment ability such as consumption tax, ET, corporate income tax and property tax.

The fifth way is according to relationship between value of tax and value of tax base. One type of tax is determined without regard to tax base such as poll tax. Last time poll tax has been used in UK in the last century. It is the tax on every citizen at rate set by local authority. Another type is unit of tax, it is according to quantity of tax base unit such as excise tax. The last is tax ad valorem, it is according to tax base in money unit such as VAT, income tax and sales tax.

The sixth way is according to the budget which taxes are directed in we can have tax in state budget and municipal budget.

The seventh way is according to level of progression. There exist proportional tax, progressive tax and regressive tax. We have discussed in chapter 2.3 about the tax rate.

The eighth way is according to calculation responding to individual facts. It can be divided into withholding tax and lump sum tax. We have discussed the detail in chapter 2.3.

2.7 Basic Indicators of Tax

Tax Quota

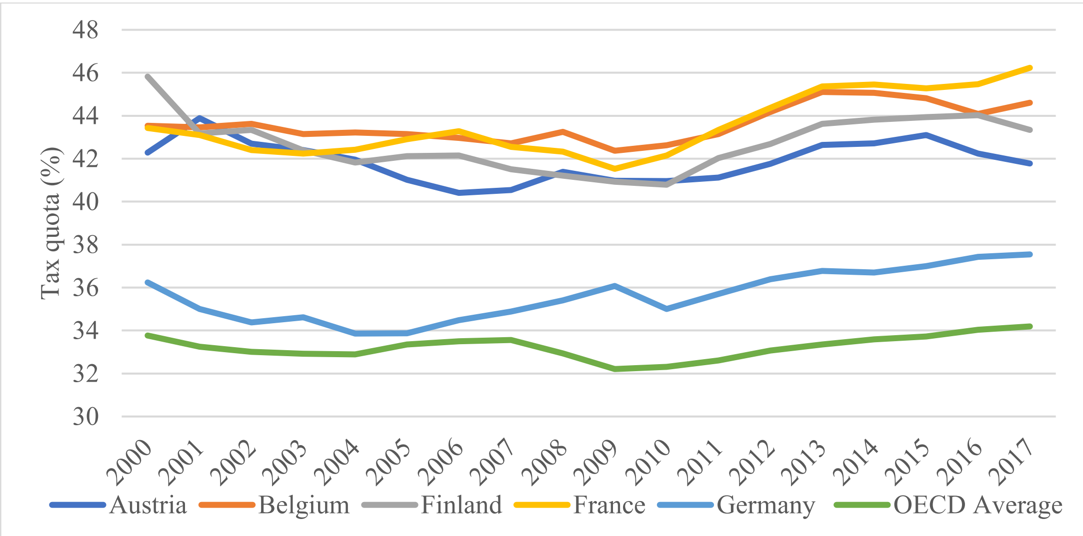
Tax quota is an indicator reflect the level of taxation in certain environment. It is the best way to measure the tax burden of national economy. It is the practical application of rules and principles in the creation and functioning of individual tax systems. This dimensionless indicator is comparable in time and space and does not need to be refined. There are two ways to calculate tax quota. The first is simple tax quota and use total tax revenue divided by GDP. The second is compound tax quota which is total revenue plus social security contribution and divided by GDP. The following is the formula of tax quota.

$$\mathrm{TQ} = \frac{Total\ tax\ revenues}{GDP}\ . \tag{2.1}$$

$$\mathrm{TQ} = \frac{Total\ tax\ revenues + Social\ security\ contribution}{GDP}\ . \tag{2.2}$$

The result will depend on what will be covered by the "tax" term and on the quality of the gross domestic product estimate made in the concerned country. *The "tax revenue" includes all taxes which are defined as obligatory payments to a public authority without any entitlement to consideration (James, Nobes, 2006).* The following graph is the tax quota of OECD average and selected countries.

Chart. 2.1: Tax quota of OECD average and selected countries.



Source: https://data.oecd.org/tax/tax-revenue.htm

The structure of tax quota is influenced by tax revenues coming from individual taxes. Also, tax quota has some limits. *Messere (1993)* states several reasons for which the international comparison of tax quotas is not correct. First is the difference of the government intervention tools make it not so good to compare tax quota in different countries. The second is the taxes paid by government to government are not excluded. The third is the tax quota does not work in grey economy. The last is the international comparability in tax quota measurement. For example, the difference of GDP and GNP is negligible in some countries but in some it is considerable.

Statutory Tax Rate

A statutory tax rate is the legally imposed rate. An income tax could have multiple statutory rates for different income levels, where a sales tax may have a flat statutory rate. The statutory tax rate is expressed as a percentage and will always be higher than the effective tax rate. The statutory personal income tax rates are provided in tax tables.

Different tax tables reflect the taxpayer's filing status. For personal taxes this includes single, married filing jointly, filing as a qualifying widower, or married filing separately. There are also tables for businesses. The statutory tax is calculated by using the appropriate tax table. A taxpayer's "tax bracket" is determined by his taxable income.

Effective Tax Rate

Effective tax rate is an indicator reflect the average tax rate paid by a corporation or an individual. The formula is as following.

$$\mathrm{ETR} = \frac{Final\ tax\ liability}{Tax\ base}\,. \tag{2.3}$$

To determine their overall effective tax rate, individuals can add up their total tax burden and divide that by their taxable income. Effective tax rate is useful when trying to compare the effective tax rates of two or more individuals, or a particular individual might pay in taxes if in a high-taxed country or in a low-taxed country. Especially many people think about relocating in retirement. Effective tax rate is more accurate in representing person's or corporation's overall tax liability than their marginal tax rate.

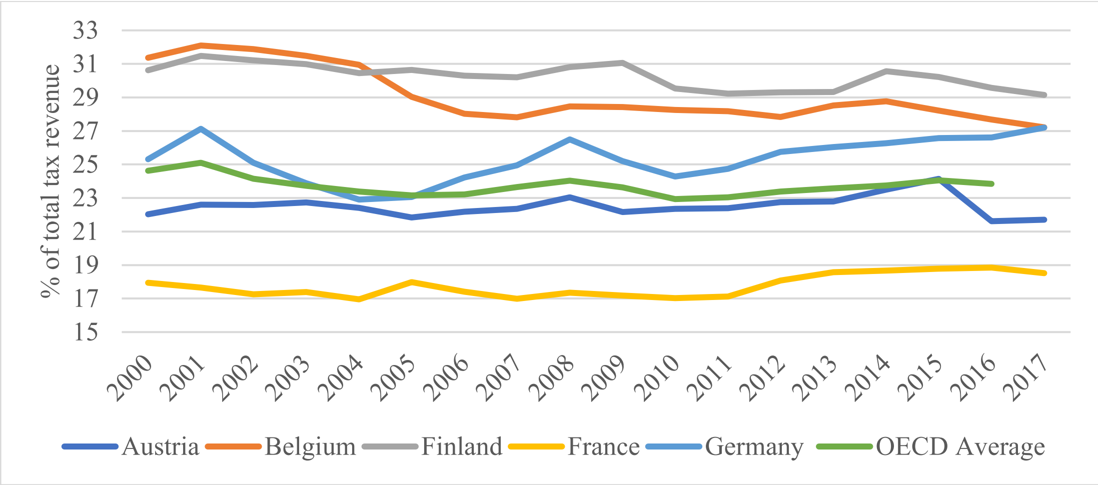
Income Tax Revenue

Another important indicator to measure income tax level is the percentage of income tax revenue of total tax revenue. It is a good indicator to know the level of income tax. The formula is as following:

$$Rate\ of\ income\ tax\ revenue\ to\ total\ tax\ revenue = \frac{Income\ tax\ revenue}{Total\ tax\ revenue}. \tag{2.4}$$

The following is the personal income tax revenue % of tax revenue of OECD average and some selected countries.

Chart. 2.2: Personal income tax revenue % of tax revenue.



Source: OECD (2019), Tax on personal income (indicator). Doi: 10.1787/94af18d7-en

We can see from the chart, among these five countries, Finland and Belgium have the highest personal income tax revenue. France has the lowest personal income tax revenue.

2.8 Personal Income Tax

Personal income tax is the most common and important tax around the world. As *Lee Burns and Richard Krever (1998) defined the personal income tax: it is the tax imposed on those persons who have taxable income for the relevant tax period.* Alternatively spoken, it is a direct tax imposed on individuals with respect to the personal income. We can say it is a non-popular tax because it can reduce the real income of individual. Personal income tax has some characteristics: non-transferable, comprehensive, fairness and economic effectives. In this chapter, we will introduce personal income tax in detail.

2.8.1 History of Personal Income Tax

The first income tax is generally attributed to Egypt and Roman Republic, as argued by *Samuel Blankson (2007)*. At that time, the more a person had in property, the more tax they paid. Taxes were collected from individuals. Also, in the year 10 AD in China, Emperor Wang Mang of the Xin Dynasty in instituted an income tax. One of the first recorded taxes on income was the Saladin tithe introduced by Henry II in 1188 to raise money for the Third Crusade.

Then in modern era, the United Kingdom use personal income tax to finance wars in 1799. This income tax was introduced into Great Britain by prime minister William Pitt the Younger to pay for weapons and equipment for the French

Revolutionary War. We often think the origin of modern income tax is at this time. Then other countries begun to have personal income tax in 19^{th} and 20^{th}. Such as the US federal government imposed the first personal income tax in 1861, to help pay for its war effort in the American Civil War. The personal income tax in other European countries that we analyse will be introduced briefly in next chapter. We can see many countries started their tax for the purpose of financing war expenses. Wars have influenced taxes much more than taxes have influenced revolutions. Many taxes especially the income tax began as temporary war measures. Similarly, the withholding method of income tax collection began as a wartime innovation in France, the United States, and Britain. World War II converted the income taxes of many countries from upper-class taxes to mass taxes.

During the twentieth century, the form of income taxation has substantially changed. *Tanzi and Casanegra de Jantscher (1989)* have identified four steps in the evolution of personal income tax over the century. *First, a change from presumptive taxation to taxing income actually received by taxpayers. Second, the transition from schedular to global taxation to meet policymakers' preference for progressive taxation. Third, a gradual, and by no means universal, movement to self-assessment. Fourth, collection by withholding at source of tax on labour income, now almost universal in industrialized countries, and frequently also on capital income.* The personal income tax had a great development in twentieth century.

At present, taxes level is much higher in developed countries than in developing countries. Developed countries usually rely more on individual income taxes and less on corporate income taxes than less-developed countries do. In developing countries, reliance on income taxes, especially on corporate income taxes, generally increases as the level of income rises. Now, many countries make an effort to simplify the tax system. The tax system become more perfect and mature.

2.8.2 Tax Subject, Tax Object and Tax Base

The tax subject of personal income is person. As for tax subject, the tax unit can be an individual or married couple or group or individual members of family. There exists a possibility to choose a tax unit and use tax splitting.

The tax object of personal income tax is the incomes of selected tax period, usually month or year. We can divide the tax object in four groups. The cash incomes are wages, salaries, interest from investment, rental incomes, irregular incomes and so on. The non-cash incomes are the income from physical benefit. For example, the usage of company´s car by managers for a private purpose. The imputed incomes such as a housework are benefits of the people's work. Another example is a small repair work in a house which is carried out by a house resident is the imputed income. The unrealised incomes are income that are unpaid and will be paid in future. It can be connected with growing price of an ownership of paintings or securities, but growing price over time must not be taxed. The unrealized income will be part of a tax base only in selling moment. The detail of tax object is also different in different countries. In most European countries, the main parts are employment income, pension income, interests from investment, income from property, annuities from life insurance and income from other activities.

The tax base of personal income tax are wages, salaries and differences between incomes and expenses. In other words, income tax is assessed on both personal income and the net income generated by businesses. Legally, both residents and non-residents need to pay the personal income tax, and different countries have their own legislation.

2.8.3 Tax Deductions, Tax Credits and Tax Exemptions

Tax deductions are deductible items that decrease tax base. It can usually be divided into standard items and nonstandard items. The standard items are related to all taxpayers. Such as a basic zero-taxable amount or a basic tax discount. The aim of nonstandard items is to support a desirable behaviour of taxpayers. For example, there may have some tax deductions for person who invest in certain areas to support education or charity. In most European countries, tax deductions usually include childcare expenses, educational expenses, sport activities expenses, medical expenses, travel expenses, interest on mortgages, alimony obligations under law, donations and so on. The deductions are different for single person and married persons, it is a kind of income splitting. Generally, a person with a higher income have a higher benefit of discounts. But growing number of tax discounts causes a risk of a tax evasion and increase tax complexity.

Tax credits are items that reduce final tax value. The most common tax credits are also for children. Some country views the children subsidy as tax deductions, some view as tax credit. Tax credits usually include additional allowance for 1st child, 2nd child, 3rd child, additional child and additional allowance for old age dependents. The tax credits in Europe usually include interest on mortgages, contributions to supplementary pension or health insurance, contributions to life insurance funds, investments in companies located in specific regions or active in specific businesses, investments in eco-friendly or energy-efficient goods, membership fees to Unions and so on.

Tax exemptions are incomes that are not covered by tax. The exemptions usually include pension income, inheritance, annuities from life insurance, owner-occupied immovable property, prizes and awards, scholarships, income from occasional activities, revenues from donations and gifts, revenues from lotteries and games activities and so on.

The items we mentioned are the main parts in most of the European countries. There exist many special items that are different due to the countries' legislation.

2.8.4 Tax Rate

The tax rate of personal income tax for most of the countries are progressive. That means lower tax rate for lower income individual, higher tax rate for higher income individual. This kind of progressive tax rate can reduce burden for poor people and increase tax revenues that impose on wealthy people. It is a kind of vertical fairness and it can decrease the gap between poor and wealth, maintain the stability of society. However, the progressive tax rate also can be divided into stepwise progression tax rate and sliding progression tax rate. As for stepwise progression, all higher incomes are influenced with a higher tax rate, if a limit is exceeded. As for sliding progressive, if taxpayer´s income exceeds a certain limit, higher tax rate is used only on differences between a total value of income and a limit value of a taxable income.

There exists a new trend that many countries use flat tax which means only one tax rate for all levels of incomes. Such as Czech Republic (15%), Bulgaria (10%), Hungry (15%) and so on. It is more simplify than the progression tax and can reduce the cost connected with taxation. The flat tax can encourage growing of an economy because investors are not penalized with higher taxes for earning money. The problem is the flat tax may increase the gap between the rich and the poor, make the poor people have larger tax burden.

The negative income tax which is put forward by M. Friedman in 1962 is also interesting. If tax deductions exceed taxable incomes or exceed subject´s tax liability, the government will pay a negative tax to a taxpayer.

2.8.5 Calculation of Personal Income Tax

The first step is to find the value of the income and tax object, remove tax exemptions which are not covered by tax. Also, we need to deduct the tax deduction. And then get tax base which can include wages, salaries and other kind of income. Multiply the tax base by tax rate to get tax liability. And then use tax liability subtract tax credits to get final tax liability which is the liability to pay tax. In some certain conditions there isn't any item reduce tax base or tax credits, we can ignore these.

The following formula is the process about how to calculate personal income tax.

Tab. 2.1: Calculation of personal income tax.

	Total income
-	Tax exemptions
	Taxable income
-	Tax deduction
	Tax base
·	Tax rate
	Tax liability
-	Tax credit
	Final tax liability

Source: Own processing.

2.8.6 Positives and Negatives of Personal Income Tax

Personal income tax is always a controversial topic. To a certain extent it maintains fairness, but to some extent it is unfair in itself. *The hardest thing in the world to understand is the income tax (Albert Einstein, 1963).* We make a summary about some views that support personal income tax and some views against personal income tax.

First, we will talk about the positive effects to impose personal income tax. As for government, in modern economies taxes are the most important source of governmental revenue. Especially in developed countries, personal income tax is the main part of government revenue. It can provide great support to the development of the economic and society. It is a flexibility government revenue. The receipts from the personal income tax tend to rise steeply in economic booms and drop sharply in recessions. As for individual, personal income tax is collected according to payment ability and value of income. It is kind of humanize and fair. Personal income tax doesn't create distortions in prices of goods. From the perspective of payment of tax, the calculation of personal income tax is relatively simple. Common people can easily understand and calculate.

There are also some negative effects of personal income tax. As for government, personal income tax is too flexibility. It is easier to change when the taxpayer's ability to pay taxes is affected by various life-course circumstances. As for individual, the personal income tax reduces the amount of income of individuals. It is an unpopular tax to taxpayer. The tax obligation is flexibility. The personal income tax contains distortions and inequities of its own. It is inevitable, irrevocably and can't be transferred to other subject. From the perspective of the taxpayer, personal income tax can reduce the incentive to work. It influences a distortion between pricing of a labour and pricing of a leisure time. Many experts think personal income tax have an adverse effect on investment, especially in the case of risky ventures.

All taxes discourage something (Lawrence Summers, 1991). It discourages bad things like pollution but at same time it discourages good things like working or investment. It is hard to say whether income tax is good or bad. However, there is no doubt that in modern economies, taxes have been an essential part of a country's development.

3 Description of Legislative Adjustment of Personal Income Tax in the Selected Countries

In this chapter, we will describe the personal income tax of five countries in detail. The following countries were selected for the comparison of the personal income tax: Austria, Belgium, France, Germany and Finland. The 18 years average of the percentage of personal income tax revenue to total tax revenue of these countries is more than 70% and less than 130% of OECD average. This chapter will introduce the personal income in 10 aspects: legislation, tax subject, tax object, tax deductions, tax credits and allowance, tax rate, withholding tax, social security contribution and tax payment. The information sources are mainly from European tax handbook 2018, electronic sources of PWC, electronic sources of European Commission, Deloitte etc.

Then we will compare some basic items of these five countries. The comparison will mainly focus on the difference of tax subject and tax object, tax deductions, tax credits and allowance, social security contributions, tax rate, some special tax and tax payments.

3.1 Personal Income Tax in Austria

Austria is a European country of approximately eight million inhabitants. It is divided into nine regions and the capital is Vienna. The official currency is EUR. Because Austria is located in the centre of Europe, it is an important transportation hub in Europe. Its economic development is fast, and its economic growth rate is higher than the average level of the European Union. In general, the agriculture sector is small but highly developed, the industry sector and service sector are strong and mature.

The personal income tax legislation of Austria is in EStG (*Income Tax Act 1988).*

3.1.1 Tax Subject

By law, the tax subjects are resident in Austria if they have domicile in Austria or stay in Austria exceeding 6 months. Married persons are taxed separately. If a child has income, he is also taxed separately. Resident taxpayers are taxable on their worldwide income. Non-residents' income is also taxed if it is from Austria, but there are some limited extent and special deductions.

3.1.2 Tax Object

In general, according to the *European Tax Handbook 2018 (p. 101)*, the taxable income includes seven categories: agriculture and forestry, professional and other independent service, trade and business, employment income, investment income, rents, lease payments and royalties, and other specific income. Taxable income is the sum of all categories of income to subtract special expenses that incurred in these categories.

In another way, taxable income includes employment income, business and professional income, investment income and capital gains (*European Tax Handbook 2018, p. 102)*. Employment income includes salary, benefits in kind, pension income and directors' remuneration. Salary are income from employment that includes all remuneration, they are payment paid to employee by the employer himself or a third party. Benefits in kind are the all benefits receive from the company such as living allowance, housing allowance, company cars and so on. Pension income are the payments from social security, or pension fund, or employer. The directors' remuneration is taxed as employment income if he belongs to a company and is an employee. Business and professional income are the income not from employment, it is the income that tax subject uses his own channel. Investment income are income from capital, or capital gains from investment in property and will be used to investment, or income from derivatives. The last category capital gains refer to the income from sales of shares, securities, or other financial assets.

3.1.3 Deductions

As for deductions, the employment expenses deductions are expenditure incurred in employment. Some certain groups of taxpayers such as artists, journalists, TV reporters and so on can use special lump-sum deduction rate *(European Tax Handbook 2018, p. 104)*. The common employees use standard lump-sum deduction for expenses which include EUR 132 for expenses, *according to PWC*. The standard lump-sum deduction means there is no need for taxpayers to keep proofs of expenses. If you don't use standard lump-sum deductions for employment expenses, you can provide proofs about the real expenses. Usually these expenses include work equipment and special work clothes, business related travel expenses, training costs and so on.

The social security contributions of employee are deductible.

As for personal deductions, some special expenses deductions are available if the annual income less than EUR 60,000, according to the electronic information on *PWC*. These special expenses include sickness, life, and accident insurance premiums, voluntary contributions to employer pension plans or state social security, expenses for the construction of a new house or renovation of housing space in Austria. *As PWC* *mentioned,* the standard lump-sum deductions for the special expense is EUR 60 per year if these expenses do not exceed this amount. Otherwise the taxpayer can use the real amount deduction and there are some other rates and limitations. Other expenses like church tax, charitable contributions and tax adviser fees also have some deductions. The childcare costs are deductible up to an amount of EUR 2,300 per child per year if the child is under the age of 10. An annual child tax-free amount of EUR 440 per child is deductible if the taxpayer can get child tax credit for that child for more than six months. This child-tax free amount is only for 2018, not available in 2019. From 2019, the childcare deduction and the child tax-free amount are combined to the family bonus plus as tax credit (*electronic information on PWC*).

3.1.4 Credits and Allowance

According to the electronic information on *PWC,* the allowance can be divided into personal allowance and family allowance. Personal allowance are tax credits which deducted from tax liability. Family allowance are the cash that tax office would pay to the taxpayer.

Personal allowance includes four dimensions. The first is the transportation credit for EUR 400 that is paid to the working people who has employment income. The second is child credit, a married taxpayer with at least one child is entitled to a head of household credit if the spouse's or single parents' income does not exceed EUR 6,000. The head of household and the single parent credit amounts EUR 494 (one child), EUR 669 (two children) and EUR 220 for each additional child. The third is child alimony tax credit. The first dependent child can get credit EUR 29.2 per month, the second dependent child can get credit for EUR 43.8 per month and each additional dependent child can get credit for EUR 58.4 per month. The retired persons may receive a credit of EUR 400 and up to EUR 764 for some special situation.

The family allowance is mainly to support family with children. It is the cash payment that government or tax office grant to the taxpayers. If the child is under three years old, the family can get EUR 114 per month; if the child is between three to ten years old, the family can get EUR 121.9 per month; if the child is between ten to eighteen years old, the family can get EUR 141.5 per month; if the child is orphan or between 19 and 23 years old and is in school, the family can get EUR 165.1 per month. If the family have 2 children, the family can get EUR 7.1 more per month, 3 children can get EUR 17.4 more per month and four children can get EUR 26.5 per month and so on. For 13th instalment, the family can get EUR 100 in September for each child between 6 and 15 years old. For every child can get EUR 58.4 allowance per month that tax office pay cash to the family. In order to support fertility, new-born children in Kinderbetreuungsgeld can get from EUR 14.53 to EUR 66 per day allowance if the children pass the mother-child check-up. If the income does not exceed EUR 55,000 in Mehrkindzuschlag, the family with three or more children can get additional allowance EUR 20 per month for each child.

3.1.5 Tax Rate

The tax rate is different between residents and non-residents. Income below EUR11,000 is tax-free for ordinarily resident individuals, while the income of non-residents is tax-free up to EUR2,000. The personal income tax rate in Austria is sliding progression tax rate. The following are the tax rates for individuals ordinarily resident in Austria.

Tab. 3.1: Personal income tax rate in Austria (annual data).1

Taxable income (EUR)	Rate (%)
11,000 and below	0
11,001 to 18,000	25
18,001 to 31,000	35
31,001 to 60,000	42
60,001 to 90,000	48
90,001 to 1,000,000	50
Above 1,000,000	55

Source: *http://taxsummaries.pwc.com/ID/Austria-Individual-Taxes-on-personal-income*

According to the electronic information on *PWC,* there is a special tax rate for 13th- and 14th- month salaries. This tax rate usually for bonus payment such as vacation and Christmas pay. The following tax rate is for this bonus payment.

Tab.3.2: Tax rate is for bonus payment (13th- and 14th- month salaries).

Other remuneration (EUR)	Wage tax (%)
For the first 620	0
For the next 24,380	6
For the next 25,000	27
For the next 33,333	35.75
Above 83,333	Regular tax rate, typically 50%

Source: *http://taxsummaries.pwc.com/ID/Austria-Individual-Income-determination*

[1] This rate applies for 2016 through 2020.

3.1.6 Social security contributions

Social security and other contributions also need to be paid. Social security payments on wages or salaries must be made by employers and employees at the following rates for 2018.

Tab. 3.3: Social security contributions rate in Austria (annual data).

Social security categories	Employer %	Employee %	Total %
Sickness	3.78	3.87	7.65
Unemployment	3	3	6
Pension	12.55	10.25	22.8
Accident	1.2	0	1.2
Miscellaneous	0.85	1	1.85
Total	21.38	18.12	39.5

Source: http://taxsummaries.pwc.com/ID/Austria-Individual-Other-taxes

According to the electronic information on *PWC,* the maximum assessment basis of gross salary is EUR 5,220 per month which means EUR 62,640 per year. Some special payments can have lower rates, for employer is 17.12% and for employee is 17.12%. An additional 3.4% health insurance contribution is payable for spouses and other family members (except children and grandchildren) who are insured together with the taxpayer. The social security contributions are tax deductible.

3.1.7 Withholding Tax

Dividends and other profits distributions to resident individuals are generally subject to a final withholding tax at a rate of 27.5%. Withholding tax are income that does not have to be included in the income tax return. Interests on deposits and other debt claims with certain banks are subject to a final withholding tax at a rate of 25%. Some other interests from some securities are at rate of 27.5%. Employers withhold the tax from salaries paid to their employees *(European Tax Handbook 2018, p. 105).*

3.1.8 Payment of Tax

In general, tax returns are due by 30 April of the year following the tax year (30 June if the tax return has been submitted electronically) *(European Tax Handbook 2018, p. 106)*.

Salaries and wages of employees are subject to withholding tax according to the PAYE system. The Pay as You Earn (PAYE) system is a method of paying income tax and national insurance contributions. The employer deducts tax and national insurance contributions from employee wages or occupational pension before paying employees' wages or pension. Taxpayers other than employees must make advance payments of income tax in quarterly instalments on 15 February, 15 May, 15 August and 15 November. These payments are generally based on the prior year's tax. Withheld or prepaid taxes are credited against final tax liability. If the taxpayer's final tax liability exceeds the amounts withheld or paid, tax is refunded. The tax office checks the relevant information and issue a tax assessment note within six months after filing. The final tax is payable within 1 month after the date of receipt of the notice of assessment.

3.2 Personal Income Tax in Belgium

Belgium is located on the western coast of Europe. The country is divided into three regions, and the currency of Belgium is the euro (EUR). It is a developed capitalist industrial country. Its economy is highly dependent on foreign countries. About 80% of its raw materials are imported and more than 50% of its industrial products are exported. It is one of the most developed industrial regions in the world and one of the earliest industrial revolutions in Europe in the early 19th century.

The personal income tax legislation of Belgium is in AR CIR/KB WIB (*Royal Degree to The Income Tax Code1992).* From tax year 2015, the three regions (Flanders, Wallonia and Brussels) impose regional surcharges. That means the tax due is composed of federal part and regional part. We will mainly focus on federal part.

3.2.1 Tax Subject

Tax subjects are resident of Belgium. It means the person's main home or his central of economic interests is established in Belgium. The resident also means he is registered in the population register or married with a Belgium resident. Married persons are assessed jointly for individual income tax, but the calculation of taxable income is determined for each spouse separately.

3.2.2 Tax Object

In general, according to the *European Tax Handbook 2018 (p. 174)*, the taxable income includes seven categories: income from immovable property, income from immovable property like dividends, interest and royalties, earned income and miscellaneous income. The net result of each category is gross income deduct expenses. Different categories are computed according to each category's own rules.

In another way, taxable income includes employment income, business and professional income, investment income and capital gains *(European Tax Handbook 2018, p. 174).* The most important is employment income which includes salary, benefits in kind, pension income and directors' remuneration. Salary are income from employment that includes all remuneration, derived by an employed person from employer for the performance of employment. There are also some deductions, professional expenses deductions, non-business expenses deductions, social security deductions and so on. There are some special items in employment income. The first is company car. The private use of a company car is kind of taxable benefit. The taxation is about 6/7 of the value of the car multiplied by a percentage linked to the car's CO2 emission rate. Both two factors have the special calculation way. The second is mobility allowance, or 'cash for car'. In some companies, employee can use cash to exchange their company car and get some net income. The taxable amount is 20% of 6/7 of the value of the company car, increased by 20% for employees who also have a fuel card. The last is mobility budget which means government use the budget to stimulate employees that have a company car to choose for different means of transportation. But this system entered into force on 1 March 2019.

3.2.3 Deductions

From previous chapter we have mentioned, according to the electronic information on *PWC,* the deductions include employment expenses deductions and personal deductions.

Employment expenses deductions means the employment-related expenses are deductible. The standard employment expenses deduction is 30% of gross income and up to EUR 4,810. The standard deduction for remunerated directors is 3% and up to EUR 2,540. Some other non-business expenses can also be deductible.

The social security contribution is fully deductible.

Personal deductions include many aspects. The support payment that is paid to separated spouse or relatives can have 80% deductible. Some non-business expenses have tax deductions for some percentage. On the level of federal tax, these expenses include pension savings contributions (up to EUR 980 or EUR 1,260), employee's contributions to group insurance (30%), charitable contributions (EUR 40 to 10% of income, up to EUR 392,200), life insurance premiums (30% and up to EUR 2,350), remuneration costs of domestic personnel (30%) and child custody expenses. If the child is under 12 years old, the child custody expenses maximum EUR 11.2 per day and 45% of these expenses is deductible (*electronic information on PWC*).

According to the *European Tax Handbook 2018 (p. 176)*, on the level of regional, these deductibles include capital repayment of a mortgage loan, security investment against theft or fire, maintenance real estate expenses and payment of services performed in the framework of local employment agencies.

3.2.4 Credits and Allowance

First, according to the electronic information on *PWC,* there exist a personal exemption in Belgium. The personal basic exemption amounts to EUR 8,860. The following is personal exemptions for dependent children.

Tab. 3.4: Personal exemptions for dependent children annually.

Number of children	Exemption increase (EUR)	Accumulated exemption (EUR)
1	1,610	1,610
2	2,540	4,150
3	5,140	9,290
4	5,740	15,030

Source: http://taxsummaries.pwc.com/ID/Belgium-Individual-Deductions

For any other dependent person, an amount of EUR 1,610 is deductible. Handicapped children or other dependants can be treated as two children. If the child is less than 3 years old, the exemptions can increase EUR 600 per child. If one of the spouses doesn't have income, the two need to pay splitting tax. Only if they have children, the non-income spouse has the basic personal exemptions EUR 8,860 and then use the following personal exemptions brackets to calculate the real amount of exemptions (basic personal exemptions EUR 8,860 is in first level, so the real exemption is EUR 2,328). The person who have the income can add the personal exemptions for dependent children and then use following personal exemptions brackets to calculate the real amount of exemptions.

The following is the rates and brackets applicable to determine the taxes linked to the personal exemptions.

Tab.3.5: Personal exemptions brackets annually.

Personal exemptions (EUR)		Rate (%)	Gains on bracket (EUR)	Total (EUR)
Over	Not Over			
0	9,310	25	2,328	2,328
9,310	13,250	30	1,182	3,510
13,250	22,080	40	3,532	7,042
22,080	40,480	45	8,280	15,322
40,480	and above	50		

Source: http://taxsummaries.pwc.com/ID/Belgium-Overview

For parents and relatives in the second degree who are order than 65 years old, the taxpayer can get allowance for EUR 3,160*(European Tax Handbook 2018, p. 177)*.

As for tax credit, according to the *European Tax Handbook 2018 (p. 177)*, there is a long-term pension saving and life insurance schemes in Belgium. Under certain conditions, each taxpayer between 18 and 64 years old is entitled to a tax credit for deposits up to EUR 960 per year on special saving pension accounts with public credit institutions and private saving banks and for life insurance premiums up to some specific amount (EUR 2,280 per year in Flemish region, EUR 2,290 in Wallon region, EUR 2,400 in Brussels region). The credit is calculated by adjusted average tax rate (between 30% and 40%) to the above-mentioned amounts.

3.2.5 Tax Rate

The following is the tax rate for residents in Belgium. The tax rate is sliding progression tax rate.

Tab. 3.6: Personal income tax rate in Belgium (annual data).

Taxable income (EUR)		Rate (%)	Tax on bracket (EUR)	Cumulative tax (EUR)
Over	Not over			
0	13,250	25	3,313	3,313
13,250	23,390	40	4,056	7,369
23,390	40,480	45	7,691	15,059
40,480	and above	50		

Source:http://taxsummaries.pwc.com/ID/Belgium-Individual-Taxes-on-personal-income

According to the electronic information on *PWC,* married persons are taxed separately on their individual sources of income and on 50% of the total income obtained by both spouses together. If only one spouse has earning income, 30% of his income (max EUR 10,940) is attribute to another spouse and is taxed separately. If the earned income of one spouse is less than 30% of other spouse, a portion of more income spouse is added to less income spouse in such a way that the amount of the income of the less income is equal to 30% of the more income spouse, with a maximum of EUR 10,940. If one spouse is self-employed, maximum 30% of the income will be attributed to the assisting spouse if the net earnings do not exceed EUR 14,200.

From tax year 2014, the regional tax competences are extended *(European Tax Handbook 2018, p. 180)*. Under the rules, the total income tax due is composed of a federal part and regional part. Tax base, rate and procedural aspects remain within the competences of the federal level. The regional surcharges are levied on a fraction (24.975%) of the reduced total of tax due. The reduced total is the total of tax due on aggregated income and separately taxed items, reduced by personal allowance and the tax due on dividends, interest and royalty income.

3.2.6 Social Security Contributions

The most important social security contributions payable by employees are the following:

Tab. 3.7: Social security payments rate in Belgium (annual data).

Contribution for	Rate (%)
Pensions	7.5
Sick leave payments	1.15
Health insurance	3.55
Unemployment	0.87
Total	13.07

Source: European Commission.

The social security contribution for employees is 13.07% and for employer is 27%. Since 2016, there is a tax shift applicable that decrease the employer's social security contributions to 25%. The social security contributions are deductible for individual income tax purpose.

As for self-employment activities, social security contributions are levied at EUR 2,862.56 if income between EUR 13,296.25 to EUR 13,550.5, rate of 20.5% on taxable income if income is from EUR 13,550.5 to EUR58,513.59 and at a rate of 14.16% on income if income between EUR 58,513.59 and EUR 86,230.52.

There is a special social security contribution and the amount between EUR 9.3 and EUR 60.94. The real amount is according to the family's real net income and it is collected by deductions from monthly net salary.

3.2.7 Withholding Tax

There is no separate wage tax in Belgium, but employee's wages and director's remuneration are subject to withholding tax at source by employer. According to the *European Tax Handbook 2018 (p. 179)*, the withholding tax items include dividend and interest, some royalties, copyright royalties, capital gains and so on.

3.2.8 Payment of Tax

Individuals must file annual tax returns by 30 June of the assessment year. A final assessment must be made by 30 June of the year following the assessment year, reporting income received during the preceding calendar year, which is the income year *(European Tax Handbook 2018, p. 179).*

Married persons are taxed separately on their individual sources of income as we have mentioned in chapter 3.2.5.

The taxpayer must fill the tax return that is sent during the tax year by the tax authorities. The tax authorities will be sent back the assessment note within six months. The tax due must be paid within 2 months of the date of sending the assessment note. Though the spouses tax separately, they must file a joined tax return.

3.3 Personal Income Tax in Finland

Finland is located in northern Europe and is one of the five Nordic countries. It is divided into five regions, and the capital is Helsinki. The currency of Finland is euro (EUR). Finland is a highly industrialized and liberalized market economy, with per capita output much higher than the EU average. The main pillar of the economy is manufacturing. Trade is very important for Finland and about a third of GDP comes from exports.

The personal income tax legislation of Finland is in TVL *(Income Tax Law 1992)*. Residents are liable to tax on their worldwide income. Earned income of resident individuals is subject to national income tax at progressive rates and to municipal and church taxes at flat rates.

3.3.1 Tax Subject

The tax subject are residents which means the individual has his main home in Finland or if he is continuously present in Finland more than 6 months. Spouses are taxed separately on their income.

3.3.2 Tax Object

As for tax object, all income received by taxpayer need to pay tax. In general, according to the *European Tax Handbook 2018 (p. 325)*, income of individuals is divided into two categories: income from capital and earned income. Income from capital is only need to pay national income tax and earned income need to pay national income, municipal income tax and church tax. Income from capital is the yield from capital investment especially dividend, interest, capital gains rental income and so on. Earned income is the income not from capital and includes employment income, such as wages, pensions and so on.

In another way, taxable income includes employment income, business and professional income, investment income and capital gains *(European Tax Handbook 2018, p. 326)*. The most important is employment income which includes salary, benefits in kind, pension income and directors' remuneration. Salaries, wages and other similar remuneration are all earned income. There are many deductions we will introduce later. According to the electronic information on *PWC,* the reimbursements for travelling expenses because of business trips are tax exemptions. Some benefits like company car, company provided housing, lunch benefit need to pay tax. Some usual benefits that are provided to all employee can be tax exemption such as health care, discounts on products and services produced by the employer, certain non-cash gifts, leisure activities and so on. The net value of total tax income and expenses are taxable income which means the total tax income minus expenses or exemptions.

The capital income includes capital gains, dividend income, interest income and rental income (*electronic information on PWC)*. The capital gains need to pay the tax at 30% and up to EUR 30,000, and then 34% on the excess. If the taxpayer sells the house which is the permanent living home more than two years, or the sales price less than EUR 1,000, the selling price is tax exemptions. The 85% of dividend need to pay tax at a rate of 30% and up to EUR 30,000, the excess are tax at rate of 34%. The interest incomes are tax at rate 30%. All net rental income needs to pay tax in some special rule.

3.3.3 Deductions

As for employment expenses, a lump-sum employment expenses deduction is granted for assumed expenses. *As PWC mentioned, t*he deduction is EUR 750. If the actual business expense is lower than EUR 750, the taxpayer can use this lump-sum employment expenses deduction. If the business expenses exceed EUR 750, he can use normal deductions. The expenses that happened in employment are deductible items. The travel expenses can be deductible up to EUR 7,000 on the condition that the taxpayer use public transportation such as train, bus, ship and so on. Moving, automobile, and entertainment expenses are not deductible.

The personal deductions include pension premiums, unemployment insurance premiums, interest expenses, household expenses, accommodation costs and donation deduction (*electronic information on PWC)*. Most social security contribution are deductible except medicare premium. Part of voluntary pension contributions and part of some saving in long-term investments are deductible. The interest payment can be partly deducted when the loan is study loan or loan to purchase a dwelling or loan to rent a dwelling because of employment location and so on. Household deduction include certain care, repair work, installation and advising work related to telecommunications technology. If you need a house because of your job, the accommodation cost can be deducted for some amount if meet some conditions. The donation for development of science or art or public financing can be deductible up to EUR 500,000 if the purpose of the donation is development of science or art.

3.3.4 Credits and Allowance

Taxpayers whose ability to pay taxes has been reduced for a specific reason, such as a maintenance obligation, unemployment or sickness, are granted a "reasonable" allowance not exceeding EUR 1,400.

According to the *European Tax Handbook 2018 (p. 329)*, a credit is granted to low- and medium-income earners (income less than EUR 41,000). The credit is calculated as 12% on that part of the taxpayers' net earned income, other than pension income, that exceeds EUR 2,500. The maximum credit is EUR 1,540. If the net earned income exceeds EUR 33,000 (less than EUR 41,000), the maximum credit is reduced by 1.65% of the excess. Usually the low and medium income is the income less than EUR 41,000.

Child maintenance payments are partly creditable based on some legislation, and they are creditable on the taxpayers' national income tax liability on earned income. One eighth of such payments is creditable, up to a maximum of EUR 80 per minor child per year. Disabled taxpayers are allowed a credit of up to EUR 115 against the national income tax due on earned income.

The taxpayer is entitled to credit against his national tax liability 20% of the remuneration paid for ordinary housekeeping, nursing and the provision of care, and maintenance and repair of the taxpayers' primary or secondary residence. The credit is increased to 50% if it is paid to private entrepreneur or a non-profit organization.

The total credit is subject to an annual maximum of EUR 2,400, based on the information in *European Tax Handbook 2018*.

3.3.5 Tax Rate

The personal income tax in Finland consists of national tax, municipal tax, church tax (payable if the individual is a member of certain Finnish congregations) and TV tax. For 2018, national income tax for earned income is imposed on individual residents at the following sliding progressive rates.

Tab. 3.8: National personal income tax rate in Finland (annual data).

Taxable income (EUR)		Tax on column 1 (EUR)	Tax on excess (%)
Over	Not over		
17,600	26,400	8.00	6.00
26,400	43,500	536.00	17.25
43,500	76,100	3,485.75	21.25
76,100		10,413.25	31.25

Source:http://taxsummaries.pwc.com/ID/Finland-Individual-Taxes-on-personal-income

As for income from capital, the capital income up to EUR 30,000 is taxed at 30% and if it over EUR 30,000 is taxed at 34%. If the pension income exceed EUR 47,000 will be taxed at 5.85%.

Based on the electronic information on *PWC,* the municipal tax is levied at a flat rate that ranges from 16.5% to 22.5% of taxable income which depending on the municipality. According to the *European Tax Handbook 2018 (p. 331)*, for Helsinki the 2018 rate is 18%. The deductions, allowance and credit of municipal tax is almost same to national tax. The church tax (the Evangelical-Lutheran Church and the Orthodox Church) is payable by members of certain Finnish congregations at rates ranging from 1% to 2.2%. the Helsinki rates are 1% for the Lutheran and 1.8% for the Orthodox church. The TV tax is 2.5% of the taxpayer's income with a maximum EUR 163. Only when the annual income more than EUR 14,000, older than 18 years old and not live in Province of Aland need to the TV tax.

3.3.6 Social Security Contributions

The social security contributions are imposed on employers, employees and self-employed individuals. In general, it includes health insurance contribution, pension insurance contribution and unemployment insurance contribution. A health insurance contribution is payable to the state by individuals covered by national health insurance. In 2018, according to the *European Tax Handbook 2018 (p. 332)*, the health insurance contribution is 1.54 % and consists two components: 0% medical premium and 1.54% daily allowance premium. If the taxpayer income less then EUR 14,280 per year, he doesn't need to pay daily allowance premium. Only daily allowance premium is deductible for income tax purpose. As for the medical premium, there is a tax at 1.61% on the pension income and social benefits. Otherwise the rate is 0%. And the medical premium is not deductible for income tax purpose. Employee must pay a pension income contribution of 6.35% if he is between 17 and 52 years old or 63 years old and above (7.85% if between 53 and 62 years old). The unemployment insurance contribution is 1.5% of the wages. These payments are deductible.

3.3.7 Withholding Tax

According to the *European Tax Handbook 2018 (p. 330)*, a final tax at source is withheld at a rate of 30% on interest received by resident individuals from domestic bank deposits and bonds. Other types of interest payments are subject to an advance withholding tax at a rate of 30% which applies to distributions of investment fund profit shares. A 25.5% advance tax is withheld on dividend paid by quoted companies. A 7.5% advance tax is withheld from dividends up to EUR 150,000. If the dividend exceeds EUR 150,000 per year, the advance tax is 28% on the excess.

3.3.8 Payment of Tax

Taxes are generally collected during the tax year by withholding and pre-assessment, with a final assessment in the following year. Married persons are taxed separately on all types of income. Individuals will receive pre-filled tax returns in April of the year following the tax year. And he must finish in the mid-May and return to the tax office.

If the taxpayers don't need to withhold tax, they need to pay tax monthly if receive the advance tax bill from tax office. If taxpayer don't receive the advance tax bill, they can apply it or report the income on the tax return and wait for the final tax bill. The residual tax payment time will be specified on the tax assessment. Interest is payable on residual tax.

The final tax is usually assessed by the end of August following the tax year. An employer must withhold tax from an employee's salary for national, municipal and church tax purposes. If the final tax due exceeds the amount of the pre-collected tax, the balance is payable in two instalments in November of the assessment year, and in February of the following year. Prepaid taxes are credited against final taxes and any deficit is collected and any surplus refund *(European Tax Handbook 2018, p. 330)*.

3.4 Personal Income Tax in France

France is the third largest country in Europe and the largest country in Western Europe. It is divided into 12 regions and Paris is the capital. The currency is the euro (EUR). France has a diversified economy. The chemical industry is a key sector for France, tourism industry is a major component of the economy. The proportion of the service industry in the French economy is increasing year by year and the employees in service industry account for about 70% of the total labour force. Also, France is the second largest exporter of agricultural products in the world after the United States.

The current personal income tax of France was in force since 1960 and is based on CGI *(General Tax Code)*.

3.4.1 Tax Subject

The tax subject are mainly residents of France. Residents are persons who have a habitual abode in France or perform employment and activities in France or have the centre of their economic interest in France. Both residents and non-residents need to pay personal income tax. The income tax is imposed on the household rather than on each of the spouses separately. Only in some special conditions the separate assessment can be used. The income of household includes the spouses' income and the income of their unmarried children under 18 years old.

3.4.2 Tax Object

In general, according to the *European Tax Handbook 2018 (p. 357)*, residents are taxed on worldwide income and non-residents are taxed on French-source income only. The taxable income is the total income subtract tax exemptions, it means the net results of the all income categories.

In another way, taxable income includes employment income, business and professional income, investment income and capital gains *(European Tax Handbook 2018, p. 359)*. The most important is employment income which includes salary, benefits in kind, pension income and directors' remuneration. All income from employment in any forms are employment income, and they should subtract the social security contributions and many deductions, which we will introduce later. Business and professional income are income not from employment, such as from trades, professions, or vocations. Investment income include dividend, interest, royalties and so on. Gains from immovable property and shares belong to capital gains.

3.4.3 Deductions

Taxable income is computed by first reducing the total gross employment income by the deductible social security contributions.

According to the electronic information on *PWC*, the employment expenses are deductible and there are two way to calculate. The basic employment expenses deduction, which is the higher of two amounts: actual employment expenses or a lump-sum of 10% of the income, with a maximum EUR 12,502 in 2018. If the taxpayer choses to deduct actual employment expenses, he should seek for professional advice because only some expenses that satisfy some conditions ca be deductible. They may include certain commuting expenses, meals taken while away from home, and professional documentation.

The personal deductions include many aspects such as expenses for sustainable development, charitable contributions, child support, alimony payments and so on. Payments of alimony to an ex-spouse, and of child support to children under 18 are fully deductible expenses. Support payments made to parents, grandparents, children over 18, or married children can be partly deductible. It is difficult to find other detail information.

3.4.4 Credits and Allowance

According to the electronic information on *PWC,* personal tax credits can be divided into following types.

The first is charitable contributions. The contributions to qualified organisations, non-profit making organisations recognised as being of public benefit, or some other special institutions can have a tax credits up to 66% of actual contributions. The contributions to associations providing free food to people in need also qualify for a tax credit of 75% for contributions up to EUR 537.

The second is childcare expenses. Taxpayers can have up to 50% of childcare expenses credit for each dependent child under seven placed at nursery school or with non-domestic help. The expenses up to EUR 2,300 per child and per year.

The third is schooling expenses. Parents whose children receive education are entitled to a tax credit of EUR 61 for a child in college, EUR 153 for a child in a middle school and EUR 183 for a child in higher education like university.

The fourth is domestic help expenses. It means if the taxpayer employs housekeeping, he can get a tax credit of 50% of the expenses. The expenses up to EUR 12,000 per year.

The fifth is tax credit on expenses for energy transition. Some equipment expenses such as boiler equipment, power generation using renewable energy, heating equipment, storm water treatment, insulating roller shutters and so on can have tax credit under certain conditions and depending on the type of expenses.

According to the *European Tax Handbook 2018 (p. 364)*, there is an additional tax relief in France. If the tax computed is less than EUR 1,177 for single persons (EUR

1,939 for married persons) may have additional tax relief. They can credit against the computed tax the difference between EUR 1,177 (EUR 1,939) and 75% of the computed tax.

3.4.5 Other Taxes

According to *European Tax Handbook 2018 (p. 366)*, there exists five types of other taxes in France. We will introduce them simply in this part.

Local tax is the tax imposed by local. There are no general local taxes on income, only exist local tax on business and professional activities. The business tax consists two types: the first is the rental value of the business premises and the other is on the enterprises' operating margin. These two may belong to corporate tax and we don't introduce here.

The other important tax is social tax. There are currently three types of social taxes in France: the generalized social contribution, the social security deficit contribution and the social levies.

The generalized social contribution (CSG) is payable by all residents on all types of income, unless expressly exempt. For employment income, the CSG is 98.25% of the gross income up to EUR 158,928 per year (on 100% of the gross income if exceed) and is withheld by employer. The rate of CSG on employment income is 9.2%, on income from immovable property and investment income is 9.9%, on pensions and similar income is 8.3%. Out of these rates, 6.8%, 7.5% and 5.9% are deductible for income tax purpose.

The social security deficit contribution (CRDS) of 0.5% is levied on the same taxable base as the CSG, and it is not deductible.

The last special tax is social levy on passive income. The rate of social levies on passive income is 6.8% apply to income from immovable property and investment income, and it doesn't apply to employment income. The levies are not deductible.

3.4.6 Social Security Contributions

The French social security system includes social security basic coverage (sickness, maternity, disability, death, work-related accident benefits, and old age state pension), unemployment benefits, compulsory complementary retirement plans, complementary death/disability coverage, and complementary health coverage. As for employee, the payments include only old -age pension, unemployment benefits and supplementary pensions. The contributions are paid by employees and employers based on social security ceilings. the following is the ceilings in 2018.

Tab. 3.9: Ceilings in 2018.

	Monthly ceiling	Annually ceiling
C1	EUR 3,311	EUR 39,732
C2 (3·C1)	EUR 9,933	EUR 119,196
C3 (4·C1)	EUR 13,244	EUR 158,928
C4 (8·C1)	EUR 26,488	EUR 317,856

Source: European Tax Handbook 2018.

The following table is social security contributions based on the ceilings.

Tab. 3.10: Social security contributions based on the ceilings in France.

Contribution for	Rate employee (%)	Base
Old age pension (capped)	6.9	Salary up to C1
Old age pension (uncapped)	0.4	Full salary
Unemployment benefits	0.95	Salary up to C3
Mandatory supplementary pension schemes (non-executives)	3.9	Salary up to C1
Mandatory supplementary pension schemes (non-executives)	9	Salary between C1 and C2

Source: European tax Handbook 2018.

Because the social security contributions are paid based on different ceilings, the average rate will decrease as the gross salary increases. The social security contributions are deductible.

3.4.7 Tax Rate

In France, the total taxable income of a family is divided by a family coefficient to obtain the net taxable income per person. The tax rate is the applied to the result, the tax so computed is then multiplied by the same coefficient to obtain the gross tax liability. The family coefficient system combines the progressive tax rate with the taxpaying capacity of the household. Total income is split according to family members, it means the more children will pay less tax. Coefficients are shown in the following table.

Tab. 3.11: Personal income tax coefficients in France.

Family composition	Coefficient (number of parts)
Single individual	1
Single, divorced or widowed persons with 1 child over 18, invalids and war veterans	1.5
Married persons without children, single or divorced person with 1 child	2
Married or widowed persons with 1 child, single or divorced persons with 2 children	2.5
Married or widowed persons with 2 children	3
Single or divorced persons with 3 children	3.5
Married or widowed persons with 3 children	4
Single or divorced persons with 4 children	4.5
Married or widowed persons with 4 children	5
Single or divorced persons with 5 children	5.5

Source: European Tax Handbook 2018.

The following table is the sliding progressive tax rate for resident in France.

Tab. 3.12: Personal income tax in France.

Taxable income per part (EUR)	Rate (%)
Up to 9,807	0
9,808-27,086	14
27,087-72,617	30
72,618-153,783	41
Over 153,784	45

Source: European Commission.

Above all, we can combine the two tables to calculate the tax liability of a family. We can see maybe it is complex. The following formula allows a simple computation of the gross income tax liability. “I” standards for net taxable income and “C” for number of parts resulting from the coefficient system.

Tab. 3.13: Personal income tax simple computation formula in France.

Value of I/C (EUR)	Gross tax
Up to 9,807	0
9,808-27,086	$I \cdot 0.14 - 1{,}372.98 \cdot C$
27,087-72,617	$I \cdot 0.3 - 5{,}706.74 \cdot C$
72,618-153,783	$I \cdot 0.41 - 13{,}694.61 \cdot C$
Over 153,7834	$I \cdot 0.45 - 19{,}845.93 \cdot C$

Source: European Commission.

According to the *European Tax Handbook 2018 (p. 364)*, there exists an exceptional contribution on high income taxpayers. For single taxpayers, the rate is 3% for the part of the gross taxable income between EUR 250,000 and EUR 500,000 and 4% for the part exceeding EUR 500,000. For married taxpayers, the rate is 3% for the part of the gross taxable income between EUR 500,000 and EUR 1 million and 4% for the part exceeding EUR1 million.

3.4.8 Withholding Tax

According to the *European Tax Handbook 2018 (p. 365)*, there is no withholding tax on employment income in France in 2018. However, employees receive their salaries net of the social tax and social security contributions. For tax on dividends and interest, there exist withholding tax. Both the dividends and French-source interest income need to pay the mandatory withholding tax of 12.8%. If withholding tax exceed the total amount tax liability, the excess is refunded.

From 1 January 2019, the income tax needs to be withheld by the debtor with respect to income such as salaries, pensions, unemployment or sickness benefits. Or tax needs to be withheld by the taxpayer itself with respect to business income, income from immovable properties, alimonies and so on.

3.4.9 Payment of Tax

French residents are required to file annual income tax returns before middle end of May to declare their net income and charges. A married couple must file a joint return for all types of income and report their dependent children's income. Separate filing status is not permitted except under strictly limited circumstances. The French Tax Administration will check the tax return and analyse the accuracy. Then tax is computed based on tax return and an assessment is sent to the taxpayer. According to the electronic information on *PWC,* taxpayers are required to pay advance payment in February and May in the assessment year, each amount is one third of the tax liability assessment in previous year. Then the balance is paid in September and October. Any prepayments and non-final withholdings are credited against the final tax.

3.5 Personal Income Tax in Germany

Germany is located in central Europe and has second most populations in the European Union. It is divided into 16 provinces, and its capital is Berlin. The currency is the euro (EUR). It is the largest economy in Europe, and it is an industrially developed country, with its total economic output ranking first in Europe and fourth in the world. Germany is one of the largest automobile producers in the world, and has a large amount export of machinery, vehicles, and chemicals.

The current personal income tax of Germany was in force since 1920 and based on EStG *(Income Tax Law)* as published on 8 October 2009.

3.5.1 Tax Subject

Residents need to pay income tax on their worldwide income. The residents in Germany are defined as if the individual has a residence or habitual abode in Germany, or the individual is physically present in Germany for more than six months. Non-residents are generally liable to this tax on certain German-source income. Resident spouses living together are assessed jointly, unless they elect to be assessed separately. If the children have income, the children are taxed separately and not be included in their parent's income.

3.5.2 Tax Object

In general, according to the *European Tax Handbook 2018 (p. 405)*, the tax object include income from agriculture and forestry, income from a trade or business, income from independent professional services, income from employment, income from capital investment, rental income and so on. The taxable income are the net results of all categories.

In other way, the taxable income can also be divided into employment income, business and professional income, investment income and capital gains *(European Tax Handbook 2018, p. 406)*. The employment income include salary, benefits in kind (such as company car and stock options), pension income and directors' remuneration. The salaries need to pay a withholding tax and be withheld by the employer. This amount also should include solidarity surcharge and social security contributions, the employers transfer them to authorities. Also, the employment income is the net result of income, which means the income should subtract some deductions.

3.5.3 Deductions

The employment expenses deductions are the expenses related to employment. According to the electronic information on *PWC,* usually these expenses include costs of travelling to and from work, business literature, professional dues, and work equipment. A standard lump-sum employment expenses deduction is EUR 1,000 and don't need document proof. If the actual expenses exceed EUR 1,000, the taxpayer can provide proof and deduct these expenses.

According to the electronic information on *PWC,* personal deductions include many types. Taxpayers can get deductions up to EUR 13,805 for the alimony paid to a divorced partner. Charitable contributions to certain international charities are deductible up to 20% of gross income. Church tax is also fully deductible. There also exist mortgage interest deductions for the income from property. Next, we will introduce three important personal deductions for children: childcare deduction, child education expenses deduction and child allowance deduction.

The expenses for childcare can be deducted up to a maximum of EUR 4,000 per year per child for children younger than 14 years or for handicapped children if meet some requirements. The taxpayer can choose lump-sum deductions for childcare. The children allowance equals EUR 2,394 per child per year (double if jointly assessed). Besides the lump-sum deductions, taxpayers can use monthly children benefit. It is EUR 194 for the first and second child each and EUR 200 for the third child. For more children, the benefit is EUR 225 each child. Taxpayer can choose lump-sum deduction or child benefit, which is higher.

For education expenses, if the children get education in EU/EEA countries or of German schools and is approved by the government. The children can get 30% of tuition fees deduction, the expense is up to EUR 5,000 per year per child. Deductions for children who are being educated in Germany or abroad, who are older than 18, and living outside the parents' household amounting to EUR 924 per year. Or the taxpayer can choose lump-sum deduction for education expenses. The lump-sum deduction for education expenses is EUR 1,320 per child per year (double if jointly assessed).

For children, the deductions for child allowance is EUR 3,906 per child per year.

In Germany, according to the electronic information on *PWC,* a standard deduction for all persons is allowed. The lump sum special expense deduction is EUR 36 for a single person and EUR 72 for married couples. A single person may deduct additional amount of EUR 1,908 per year if at least one child. The amount is increased by EUR 240for each additional child.

3.5.4 Credits and Allowance

The tax credits for first and second child is EUR 2,388 per year, for third child is EUR 2,460 per year and for each additional child is EUR 2,760 per child per year *(European Tax Handbook 2018, p. 410)*. There is no other tax credits or allowance to reduce tax liability.

3.5.5 Tax Rate

Individual income tax is imposed at progressive rates under complex tables. Abbreviated tables are presented below. There have two ways to pay the tax. The following table is the tax rate that for single taxpayers and married taxpayers filing separately.

Tab. 3.14: Personal income tax rate that single taxpayers and married taxpayers filing separately in Germany.

Annual taxable income (EUR)	Tax rate (%)	Tax payable (EUR)
Up to 9,000	0	0
9,001-13,996	14-23.97	699.30-1,197.30
13,997-54,949	23.97-42	9,816.19-17,199.84
54,950-260,532	42	86,344.44
Over 260,532	45	-

Source: European Tax Handbook 2018.

The following table is the tax rate that married taxpayers filing jointly.

Tab. 3.15: Personal income tax rate that married taxpayers filing jointly in Germany.

Annual taxable income (EUR)	Tax rate (%)	Tax payable (EUR)
Up to 18,000	0	0
18,001-27,992	14-23.97	1,398.74-2394.84
27,993-109,898	23.97-42	19,632.63-34,400.10
109,899-521,064	42	172,689
Over 521,064	45	-

Source: European Tax Handbook 2018.

According to the *European Tax Handbook 2018 (p. 412)*, a solidarity surcharge of 5.5% is levied on the income tax due and is computed on the total tax liability. Church tax is different in different cities, varies from 8% to 9%.

3.5.6 Social Security Contributions

The social security has four categories: pension insurance, health insurance, unemployment insurance and long-term care insurance. Each category has the maximum amount.

Tab. 3.16: Social security contributions of employee in Germany.

Contribution for	Rate (%)	Income ceiling (EUR)
Pension insurance	9.3	41,400
Health insurance	7.3	28,125
Unemployment insurance	1.5	41,400
Long-term care insurance	1.525 (for childless individuals is 1.55)	28,125
Total	19.625 (for childless individuals is 19.65)	139,050

Source: http://taxsummaries.pwc.com/ID/Germany-Individual-Other-taxes

In 2018, generally 88% of the all contributions is deductible. The annual deduction for all these contributions is limited to EUR 2,800.

3.5.7 Withholding Tax

Wage tax must be withheld by employers from salaries. The employer is legally obliged to withhold taxes from an employee's salary and to remit the taxes to the tax office monthly. This tax is a prepayment of the final income tax due by the employee. Part of capital investment income is withholding at a rate of 25%. Remuneration paid to contractors for building services is subject to a 15% withholding tax *(European Tax Handbook 2018, p. 411)*.

3.5.8 Payment of Tax

According to the electronic information on *PWC,* the annual tax returns must be filed by 31 July of the year following the tax year. Extensions for filing is admitted under some conditions. Married couples can file tax returns jointly or separately. If the tax return is not filed on time, there will be late filing penalties. The tax authorities will issue a final tax assessment notice once they have processed the return. Any balance due is payable within 1 month after receipt of the tax assessment notice. Otherwise the taxpayers need to pay interest or penalties.

If taxpayers have additional non-employment income, they will usually be asked to make quarterly prepayments. The quarterly prepayments are due on 10 March, 10 June, 10 September, and 10 December. The amount is based on prior year's tax or on estimates of income not subject to withholding tax.

3.6 Basic Items Comparison

In this part, we will compare some items of personal income tax of these five countries. By using the table to compare the items of different countries will be more specific and clearly.

3.6.1 Tax Subject and Tax Object

The mainly tax subject of personal income tax is the resident, but the definition of resident have a little different in different countries. The following is the comparison of tax subject and tax object of the five selected countries.

Tab. 3.17: The comparison of tax subject and tax object of the five selected countries.

Country			Austria	Belgium	Finland	France	Germany
Tax subject	Resident	Definition	Habitual abode or more than 6 months stay	Habitual abode or central of economic interests in the country or married with a resident	Habitual abode or more than 6 months stay	Habitual abode or employment or central of economic interests in the country	Habitual abode or more than 6 months stay
		Couple	Separately	Assessed jointly, calculation separately	Separately	Jointly (usually on household, special condition tax separately)	Jointly or separately
	Non-resident		Austria-source income	Belgium-source income	Finland-source income	French-source income	German-source income
Tax object	Employment income		Yes	Yes	Yes	Yes	Yes
	Business and professional income		Yes	Yes	Yes	Yes	Yes
	Investment income		Yes	Yes	Yes	Yes	Yes
	Capital gains		Yes	Yes	Yes	Yes	Yes

Source: Own processing.

We can see the resident of Austria, Finland and Germany is defined as the person who has habitual abode or stay more than 6 months in the county. The definition of resident in Belgium and France is a little different. The resident in Belgium is the person who has habitual abode or economic activity or married with the resident. The resident in France is the person who have habitual abode or employment or central of economic interests in the country. The couple residents in Austria and Finland are taxed separately. In Belgium the couple are assessed jointly but calculate separately. In France the couple usually taxed jointly based on the household members, only some special conditions taxed separately. In Germany, the couple can choose tax jointly or separately. All the non- residents pay the tax based on the income from that country.

The tax objects are very similar in these five countries. We can divide the tax object into four categories: employment income, business and professional income, investment income and capital gains. The details have been introduced before.

3.6.2 Tax Deductions

Tax deductions are the items that reduce the tax base. We compare tax deductions in 3 dimensions: employment expenses deductions, social security contribution deductions and personal deductions.

Tab. 3.18: The comparison of employment expenses deductions of the five selected countries.

Country		Austria	Belgium	Finland	France	Germany
Employment expenses deductions	Lump-sum	EUR 132	30% of gross income and up to EUR 4,810	EUR 750	10% of the income, max EUR 12,502	EUR 1,000
	Work equipment or clothes	Yes	NI[2]	Yes	NI	Yes
	Business related travel expenses	Yes	NI	Max EUR 7,000	NI	Yes
	Technical and business literature	Yes	NI	Yes	NI	Yes
	Training cost	Yes	NI	NI	NI	NI
	Certain commuting expenses	NI	NI	NI	Yes	NI
	Meals taken while away from home	NI	NI	NI	Yes	NI

Source: Own processing.

In all these five countries, residents can choose the lump-sum employment expenses deductions or the real amount employment expenses deductions. The lump-sum deductions in Austria, Finland and Germany are fixed amount. In Austria, each employee can get EUR 132 deductions; in Finland, each employee can get EUR 750 deductions; in Germany, each employee can get EUR 1,000 deductions. We can see the highest is Germany and the lowest is Austria. The deductions in Belgium and France are percentage of the income and there exists a maximum amount. In Belgium, the lump sum employment expenses deduction is 30% of gross income and up to EUR 4,810. In France, the lump sum employment expenses deduction is 10% of gross income and up to EUR 12,502. We can see from the table, usually the employment expenses deductions include work equipment or clothes, business travel expenses, technical and business literature, training cost and so on.

[2] NI: It has not been identified.

Social security contributions are usually deductible in most countries because of its special characteristic. The following is the deduction of social security contributions of the five selected countries.

Tab. 3.19: The comparison of social security contributions deductions of the five selected countries.

Country	Austria	Belgium	Finland	France	Germany
Social security contributions	Fully deductible	Fully deductible	Fully deductible	Fully deductible	88% of the all contributions is deductible, max EUR 2,800
Detail[3]	18.12%	13.07%	9.79% or 11.29%	11.75% and more	19.625% or 19.65%

Source: Own processing.

The social security contributions are fully deductible in Austria, Belgium, Finland and France. In Germany, only 88% of the contributions are deductible and the maximum amount is EUR 2,800.

Personal deductions are the deductions depend on the situation of taxpayer. Government usually use the personal deductions to support or encourage something. The following is some personal deductions comparison in the five selected countries.

[3] More details are in chapter 3.6.4, Tab.3.22.

Tab. 3.20: The comparison of selected personal deductions of the five selected countries.

Country	Austria	Belgium	Finland	France	Germany
Standard lump-sum deductions	EUR 60 per year if income <EUR 60,000	NO	NO	NO	EUR 36 for a single person and EUR 72 for married couples (single individual can add EUR 2,760 if have each additional child)
Childcare	Max EUR 2,300 per child per year if child less than 10 years old	45% of child custody expenses (max EUR 11.2 per day) if child under 12 years old	NI[4]	Yes	Lump-sum EUR 2,394 per child per year (couple double) or monthly amount deduction, max EUR 4,000 per child per year
Education expenses deduction	NI	NI	NI	NI	lump-sum EUR 1,320 per child per year (couple double) or 30% of tuition fee (max tuition fee EUR 5,000 per year)
Child tax-free amount	EUR 440 per child per year	NI	NI	NI	EUR 3,906 per child per year
Support payment or alimony payments (to separated spouse or relatives)	NI	80%	NI	Yes (fully or partly deductible)	Max EUR 13,805
Pension savings contributions	NI	Up to EUR 980 or EUR 1,260	Yes	NI	NI
Charitable contributions	NI	EUR 40 to 10% of income, up to EUR 392,200	Minimum of EUR 850 and a maximum of EUR 50,000[5]	NI	Max 20% of income
(Mortgage) interest expenses	NI	NI	Yes	NI	Yes

Source: Own processing.

We can see both Austria and Germany have standard lump-sum deductions to residents. The residents in Austria can get standard lump-sum deductions if income less

[4] NI: It has not been identified.

[5] For Finland, the donation deduction only for the purpose of development of science or art. The requirement for deduction is that the donation is made to a university with public financing that is located in the European Economic Area or to a related university fund.

than EUR 60,000. All residents in Germany (both individual and couple) can get standard lump-sum deductions and the individual can get more if have children.

The most common deductions are for family with children. Austria, Belgium, France and Germany have deductions for childcare. In Austria and Germany define the fixed amount deductions per child with up limit, Belgium childcare deductions is percentage of the childcare expenses with up limit. The Belgium also have deductions for education expenses and a child tax-free amount. The child tax-free amount also be applied in Austria for EUR 440 per child per year which is lower than Germany with EUR 3,906 per child per year.

Part of alimony payment to separated spouse or relatives in Belgium, France and Germany are deductible. Some part of pension savings contributions is deductible in Belgium and Finland. The charitable contributions to some specific institutions are deductible in Belgium, Finland and Germany. The mortgage interest expenses are deductible in Finland and Germany.

3.6.3 Tax Credits

Tax credits are the amount that reduce the tax liability. Because there are many different types of tax credits. We divide them into two categories based on the aim of the tax credits.

The most important tax credit is to support families with children. The reason is the low fertility rate has become a serious problem for many developed countries and European countries. Using tax credits is a good tool to encourage family have more children. The following is the comparison of the selected tax credits aim to support family with children of these five counties.

Tab. 3.21: The comparison of selected tax credits that aim to support family with children of the five selected countries.

Country	Austria	Belgium	Finland	France	Germany
Child credit	Yes. For spouse's or single parents' income does not exceed EUR 6,000, EUR 494 for one child, EUR 669 for two children and EUR 220 for each additional child.	Yes. Tax system combines the personal exemptions and tax credits for children. See detail in chapter 3.2.4.	NI[6]	NI	Yes. For 1st and 2nd child is EUR 2,388 per year, for 3rd child is EUR 2,460 per year and for each additional child is EUR 2,760 per child per year.
Child alimony tax credit	Yes. For 1st dependent child is EUR 29.2 per month, the 2nd dependent child is EUR 43.8 per month and each additional dependent child can get credit for EUR 58.4 per month.	NI	Yes. One eighth of expenses is creditable, up to a maximum of EUR 80 per minor child per year.	Yes. Up to 50% of childcare expenses credit for each dependent child under seven placed at nursery school or with non-domestic help. The expenses up to EUR 2,300 per child and per year.	NI
Schooling expenses	NI	NI	NI	Yes. EUR 61 for a child in college, EUR 153 for a child in a middle school and EUR 183 for a child in higher education like university.	NI

Source: Own processing.

We can see from Tab.3.21, Austria, Belgium and Germany have child credits for person with child; Austria, Finland and France have child alimony tax credits; France have the school expenses credits for the children that in school; and Austria has childcare allowance for family with different number of children with different ages. In these countries, Austria and France have two tax credits for children. It reveals that these two countries have implemented a strong tax policy to support the fertility rate.

Then, we will compare other tax credits of these five countries.

[6] NI: It has not been identified.

Tab. 3.22: The comparison of selected tax credits of the five selected countries.

Country	Austria	Belgium	Finland	France	Germany
Total tax credits limitation	No	No	Max EUR 2,400 per year	No	No
Transportation credit	EUR 400 for employee	NI[7]	NI	NI	NI
Retired persons' income	EUR 400 and up to EUR 764[8]	NI	NI	NI	NI
Care for old parents and relatives	NI	EUR 3,160	NI	NI	NI
Low and medium income	NI	NI	Yes[9]	NI	NI
Charitable contributions	NI	NI	No	Yes	NI
Domestic help expenses (employs housekeeping, maintenance and repair house fee and so on)	NI	NI	20% of national tax liability	50% of the expenses[10]	NI
Energy transition	NI	NI	NI	Yes	NI

Source: Own processing.

Among these five countries, only Finland has the maximum tax credits limitation with EUR 2,400 per year, other countries don't have the tax credits amount limitation. Austria has the transportation credits to support the employee. Also, Austria has tax credits for retired persons' income and the family care for old parents and relatives. We can see the tax policy in Austria has taken consideration of the family with old people and support them. The aging population problem also has become a big problem in many countries. Finland has the tax credits for low and medium income to reduce the income gap. France treat the charitable contributions as the tax credits to encourage the charity activity. The domestic help expenses such as employs housekeeping, maintenance and repair house fee and so on are partly deductible in Finland and France.

From the comparison table, we can see different countries use different tax credits as tax policy to support some activities based on the county's own present situation. Tax policy is increasingly important for the development of a country.

[7] NI: It has not been identified.

[8] The retire tax credit amounts between EUR 400 and EUR 764 if: 1) the taxpayer is married for more than six months in the calendar year or the registered partner does not live permanently separate; 2) the pension income of the taxpayer does not exceed EUR 19,930 per year; 3) the income of the spouse does not exceed EUR 2,200 per year, and 4) the taxpayer is not eligible for the sole earner credit.

[9] Low- and medium-income earners in 2018 means income less than EUR 41,000. There exists two different ways to calculate the tax credits for different income, see detail in chapter 3.3.4.

[10] The expenses up to EUR 12,000 per year.

3.6.4 Social Security Contributions

Social security contributions are usually withheld by the employer from the employees' salaries. And then the employer remits the taxes to the tax office monthly. The following is the comparison of social security contributions of employees in selected five countries.

Tab. 3.23: The comparison of employees' social security contributions of the five selected countries.

Country	Austria[11]	Belgium[12]	Finland[13]	France[14]	Germany [15]
Sickness (%)	3.87	1.15	No	0.95	No
Unemployment (%)	3	0.87	1.5	No	1.5
Pension (%)	10.25	7.5	6.75 or 8.25	6.9 and 0.4 (progression)	9.3
Accident (%)	0	No	No	No	No
Health insurance (%)	No	3.55	1.54	No	7.3
Miscellaneous (%)	1	No	No	No	No
Mandatory supplementary pension schemes (%)	No	No	No	3.9 and 9 (progression)	No
Long-term care insurance (%)	No	No	No	No	1.525 or 1.55
Total (%)	18.12	13.07	9.79 or 11.29	11.75 and more	19.625 or 19.65

Source: Own processing.

The sickness insurance is paid in Austria, Belgium and France. The unemployment insurance is paid in all countries except France. All countries employees need to pay the pension insurance. The health insurance is paid in Belgium, Finland and Germany. France has the special mandatory supplementary pension schemes at a progression rate based on the income. And Germany has the long-term care insurance at different rate for different types of person. Except France, the total social security contribution rate for Germany is the highest and the rate for Finland is the lowest.

The following table is the comparison of social security contribution rate of employee and employer in the five selected countries.

[11] The maximum assessment basis of gross salary is EUR 5,220 per month which means EUR 62,640 per year. An additional 3.4% health insurance contribution is payable for spouses and other family members. See detail in chapter 3.1.6.

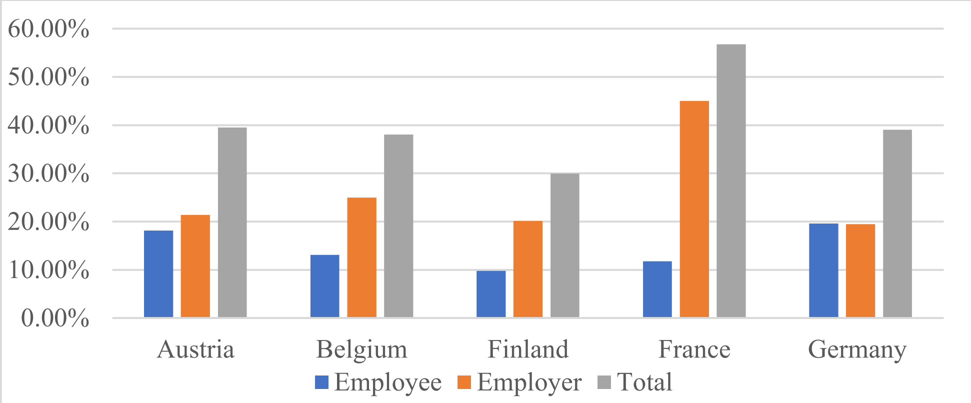
[12] There is a special social security contribution and the amount between EUR 9.3 and EUR 60.94. See detail in chapter 3.2.6.

[13] See detail in chapter 3.3.6.

[14] The contributions are paid by employees and employers based on social security ceilings. See detail in chapter 3.4.6.

[15] Each category has the maximum amount. See detail in chapter 3.5.6.

Chart.3.1: The comparison of social security contributions[16] of the five selected countries.



Source: Own processing.

Among these five countries, France has the highest total social security contribution rate. Actually, the level of social security contributions of France is one of the highest in the world. Finland has the lowest total social security contribution rate. What these countries have in common is that the employers' social security contribution rate is higher than employees.

3.6.5 Tax Rate

Most countries in the world use the progressive personal income tax rate. But the details are different. In this part, we compare the types of the tax rate, the minimum wages that need to pay tax and the tax rate. The following table is the comparison of tax rate in selected five countries.

Tab. 3.24: The comparison of tax rate of the five selected countries.[17]

Country	Austria	Belgium	Finland	France	Germany
Type	Sliding progressive tax rate	Sliding progressive tax rate	Sliding progressive tax rate	Use family coefficient, sliding progressive tax rate	Sliding progressive tax rate
Minimum wages that need to pay tax	EUR 11,001	EUR 0	EUR 17,600	EUR 9,807	EUR 9,001
Rate	25%-55%	25%-50%	6%-31.25%	14%-45%	14%-45%

Source: Own processing.

All these five countries use the sliding progressive tax rate. Under the sliding progressive rate, if taxpayer´s income exceeds a certain limit, higher tax rate is used only on differences between a total value of income and a limit value of a taxable

[16] The social security contribution of employee in Finland, France and Germany use the lowest rate, the social security contribution of employer in Finland, France and Germany use the average rate in 2018.

[17] Tax rate for residents' annually employment income in 2018.

income. France has the special tax rate system, family coefficient system which combines the sliding progressive tax rate and the family coefficient. It means the family coefficient system combines the progressive tax rate with the taxpaying capacity of the household. Total income is split according to family members, it means the more children will pay less tax.

According to the table, we can see the minimum wages that need to pay tax is lowest in Belgium which is EUR 0. It means all wages need to pay the tax. The country with highest minimum wages that need to pay tax is Finland which is EUR 17,600. The minimum wages that need to pay tax is very similar in France (EUR 9,807) and Germany (EUR 9,001). As for the tax rate, different countries have different tax brackets. The minimum tax rate for first level tax brackets is in Finland (6%) and maximum tax rate for highest tax brackets is in Austria (55%).

3.6.6 Other Tax

First, we will compare the withholding tax. As we have mentioned before, withholding tax is the amount that employers withhold from salaries paid to their employees. In most countries, withholding tax applies to employment income. Most developed countries operate a wage withholding tax system. Some systems require that income taxes be withheld from certain payments other than wages made to domestic persons. The following table is the comparison of withholding tax of the five selected countries.

Tab. 3.25: The comparison of withholding tax of the five selected countries.

Country	Austria	Belgium	Finland	France	Germany
With-holding tax	Yes, for employment income, dividends, profit distributions, interest on deposits and debt, interest from some securities and so on.	Yes, include employment income, dividend and interest, some royalties, copyright royalties, capital gains and so on.	Yes, include employment income, interest from deposits and bond, interest payments, dividends and so on.	Yes, no withholding tax in 2018 for employment income,[18] only for dividends and interests.	Yes, include employment income, capital investment income and remuneration paid to contractors for building services.

Source: Own processing.

Withholding tax is exist in all these five countries, but the objects are different. The most important employment income is withheld in Austria, Belgium, Finland and Germany, except France in 2018. For France, there is a new withholding tax applicable from January 1st, 2019. The salary income is subject to withholding tax from 2019. The

[18] Employment income are subject to withhold tax from January 1st, 2019 in France.

salary income includes any compensation or benefit paid by an employer to its employee, including equity income which is non-qualified for French tax purposes. Some other income, such as pension income, various types of allowances (health, insurance), income received by independents and rental income are also be withheld. Other items such as dividend, interests, investment income and so on are different legislated in different countries.

In addition to employment income taxes, some countries have other special taxes. We compare them in following table.

Tab. 3.26: The comparison of other special tax of the five selected countries.

Country	Austria	Belgium	Finland	France	Germany
Tax for 13th- and 14th- month salaries	Yes[19]	No	No	No	No
Regional tax or municipal tax	No	Yes[20]	Yes[21]	No	No
Social tax	No	No	No	Yes[22]	No
Church tax	No	No	Yes[23]	No	Yes[24]
TV tax	No	No	Yes[25]	No	No
High income tax	No	No	No	Yes[26]	No
Solidarity surcharge	No	No	No	No	Yes[27]

Source: Own processing.

Austria has a special tax rate for 13th- and 14th- month salaries. This tax rate usually for bonus payment such as vacation and Christmas pay. In addition to national tax, Belgium has regional tax and Finland has municipal tax. France has social tax which include generalized social contribution (CSG), the social security deficit contribution (CRDS) and the social levies. Both Finland and Germany have church tax, the rate is different in different cities. The church tax rate is relatively higher in Germany than Finland. Finland has the TV tax, which is 2.5% of the taxpayer's income with a maximum EUR 163. Only when the annual income more than EUR 14,000, older

[19] Sliding progression rate, see detail in chapter 3.1.5, Tab.3.2.
[20] The regional tax is 24.975% of reduced total tax due, see detail in chapter 3.2.5.
[21] The municipal tax is at flat rate that ranges from 16.5% to 22.5% of taxable income that depend on municipality, see detail in chapter 3.3.5.
[22] The social tax includes CSG, CRDS and social levy, partly deductible. See detail in chapter 3.4.5.
[23] The church tax ranges from 1% to 2.2% of income. See detail in chapter 3.3.5.
[24] The church tax varies from 8% to 9% of income, see detail in chapter 3.5.5.
[25] The TV tax is 2.5% of income and max EUR 163 (annually). See detail in chapter 3.3.5.
[26] The high-income tax is at sliding progression rate from 3% to 4% of income, see detail in chapter 3.4.7.
[27] The solidarity surcharge of 5.5% is levied on the income tax due and is computed on the total tax liability.

than 18 years old and not live in Province of Aland need to the TV tax. High income tax is applied in France to reduce the income gap between the low-income person and high-income person. In Germany, there is a solidarity surcharge which is 5.5% of tax liability.

3.6.7 Tax Payment

The procedure to pay taxes are roughly the same across the five countries. Usually the tax year is the year after income year. The taxpayers must file the tax returns first, and then waiting for the assessment notes from tax office. After receiving the assessment note, if the final tax liability per the annual tax return is higher than the withholdings, the taxpayer is required to pay the balance to the authorities, before deadline. If the tax withheld is more than the computed tax on the tax return, the authorities will refund the difference.

In the following table, we compare the taxable period, deadline for submitting tax returns and final tax payment of the five selected countries.

Tab. 3.27: The comparison of tax payment of five selected countries.

Country	Austria	Belgium	Finland	France	Germany
Taxable period (tax year)[28]	Calendar year	From 1 January to 31 December	From 1 January to 31 December	From 1 January to 31 December	Calendar year
Deadline for submitting tax returns	April 30 of the following year (paper form) or end of June of the following year (electronic filing).	Before 30 June of the assessment year.[29]	The due date is in mid-May.[30]	Residents must file tax return before mid-May or end of May of the following year.[31]	Annual returns must be filed by 31 July of the year following the tax year. [32]
Tax payment	The final tax is payable within 1 month after the date of receipt of the notice of assessment.	The tax due must be paid within 2 months of the date of sending the assessment note.[33]	Between August of the tax assessment year and February of the year following the tax assessment year.	The balance is paid from September to December.	Taxes are payable within one month of the date that the final assessment is issued.

Source: Own processing.

[28] The tax return for income year "x" must be filed during the year "x+1", called the tax year (e.g.: income year 2018, tax year 2019).

[29] An assessment note is sent by the tax authorities within six months following the tax year.

[30] Individuals receive pre-completed tax returns in April of the year following the tax year.

[31] The exact filing deadline is confirmed each year by the French tax authorities.

[32] The filing deadline expires on 28 (29) February of the second year following the tax year if the income tax return is prepared by a certified tax advisor.

[33] A final assessment must be made by 30 June of the year following the assessment year.

We can see taxable period or the tax year of these five countries are same. The tax year is calendar year or from 1 January to 31 December. As for the time to submit tax returns, the earliest is in Austria which is April 30 of the following year if submit in paper form. The latest time to submit tax return is in Germany which is before 31 July of the year following the tax year.

The final tax payment time is more flexible because it depends on the time that authority send the assessment note to taxpayers. For Austria and Germany, the final tax payment must be paid within 1 month after the date of receipt of assessment note. In Belgium the period is longer, which is within 2 months of the date sending the assessment note. But the final assessment date in Belgium have deadline, it must be made by 30 June of the year following the assessment year. Finland and France have the exact taxpayment period. We can see Finland tax payment period is longer than France. In Finland, taxpayers must make tax payment between August of the tax assessment year and February of the year following the tax assessment year. In France, the final tax payment must be paid from September to December.

4 Comparison of Personal Income Tax of the Selected Taxpayers

This chapter will calculate and compare the personal income tax in Austria, Belgium, Finland, France and Germany according to the details mentioned in chapter 3.

Because the income tax include many types of income and it is difficult to make hypothesis about the amount of other income based on different situation of different countries. We assume the tax subject are only the income of salary and wages. So, the calculation will use the average annual wages of these countries in 2018. In order to compare the different situation of low-income and high-income taxpayers, we use multipliers from 0.5 to 5 to calculate.

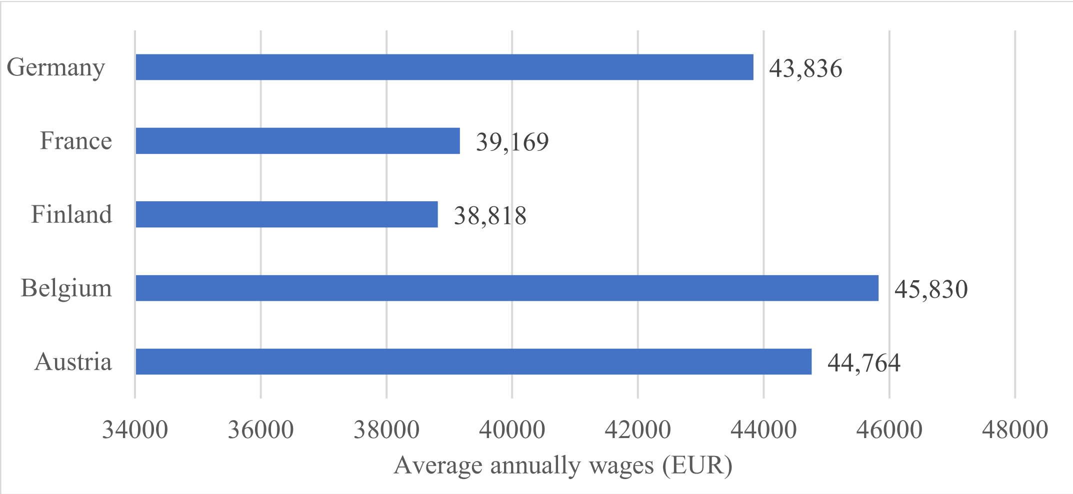
The calculation will show the tax liability and tax burden of five kinds of tax subjects. The first tax subject P1 is the single taxpayer with no children and he is about 28 years old. The second tax subject P2 is single taxpayer with one child. The child is 6 years old and in primary school. The third tax object P3 is a married spouse and only the husband has income. They have two children and one child is 6 years old, the other is 16 years old. Both children are in school. P4 is the married spouse and only the husband has income. They have four children, they are 6 years old, 7 years old,15 years old and 16 years old. The last taxpayer P5 is a spouse with 2 children and need to care for one grandmother. The two children one is 6 years old and the other is 16 years old. Both children are in school.

After the basic calculation, we can compare some tax items and tax burden of these five different tax subjects.

4.1 Personal Income Tax Calculation in Each Country

This subchapter will analyse the personal income tax in each country. For specified types of taxpayers, their tax liability and tax burden will be calculated ranging from 0.5 to 5 times the average annual wage. The following is the average annually wages of these five countries in 2018 (EUR).

Chart.4.1: Average annually wages of five selected countries in 2018.



Source: https://data.oecd.org/earnwage/average-wages.htm

We can see among these five countries, in 2018, Belgium has the highest average annually wages and Finland has the lowest average wages. We will calculate the tax base on the average annually wages.

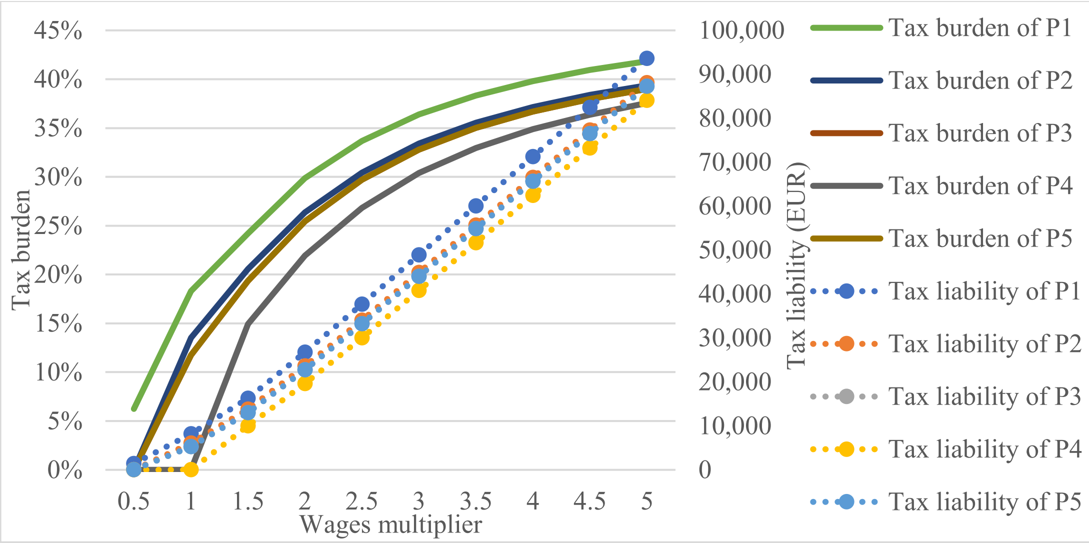
4.1.1 Personal Income Tax Calculation in Austria

The calculation of personal income tax in Austria is based on the information in chapter 3.1. The annual average wage in Austria is EUR 44,764 in 2018.

We first use income deducts the social security contributions which is 18.12% of the employees' income and it is fully deductible, and then deduct the additional health insurance for family members for the taxpayer P2 P3 P4 and P5. The next step is to subtract the employment expenses deductions and personal deductions to get the tax base. The tax rate in Austria is sliding progressive tax rate and has 7 bands, we calculate the tax liability base on the tax base and tax rate. However, the tax liability is not the final tax liability and we need to subtract the tax credits which include personal allowance and family allowance to get the final tax liability. The tax burden is total final tax liability divided by the income.

The following chart is the tax burden and tax liability of taxpayers (12 months wages) with different level of income in Austria.

Chart. 4.2: Tax burden and tax liability of taxpayers in Austria (12 months wages).

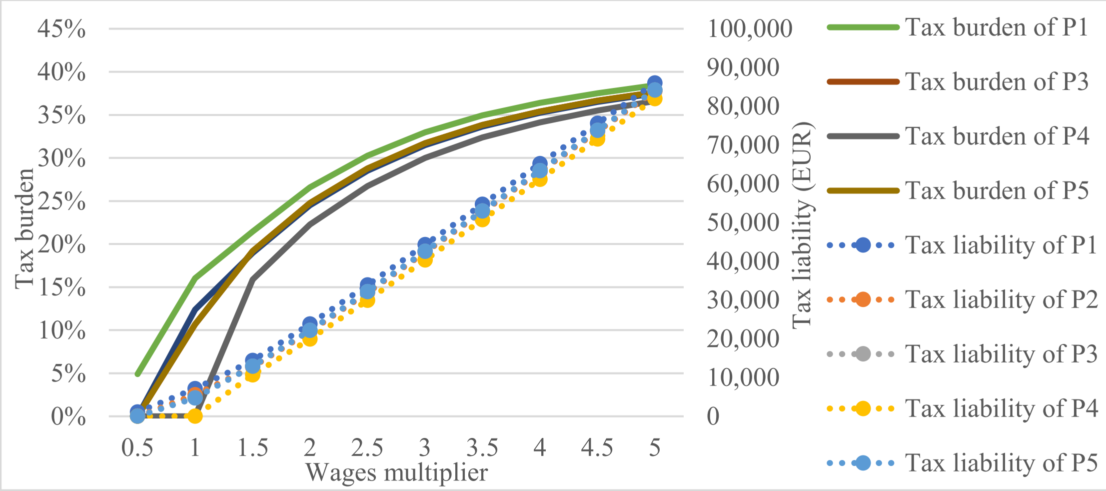


Source: Own processing.

Chart 4.2 shows the tax burden and tax liability of individual taxpayers ranging from 0.5 to 5 times the average annual wage. Both the tax burden and the tax liability grow with the taxpayer's income growth. This is because the progressive tax rate for personal income. In this chart, a slower growth rate can be observed, which gradually decreases. It is also clear from chart.4.2 that the taxation of individual types of taxpayers is different. The tax burden and tax liability of P1 is the highest and the P4 is the lowest. This result mainly due to the tax deductions for children. Taxpayer P1 is single person and taxpayer P4 are spouse with four children, it is obvious that P4 can get more personal deductions for children. However, we can see the growth rate of tax burden decrease with wages increase, the tax liability increase relativity strong. The difference of taxpayer P3 and P5 is that P5 need to care for an old grandmother. The tax burden and liability of P3 and P5 are same, we can see the two lines coincide, which shows there is no tax policy to support the family with old people.

Austria has the special tax calculation way for the for 13th- and 14th- month salaries. This tax rate usually for bonus payment such as vacation and Christmas pay. The following table is the tax burden and tax liability of taxpayers (13 months wages) with different level of income in Austria.

Chart. 4.3: Tax burden and tax liability of taxpayers in Austria (13 months wages).



Source: Own processing.

The main idea is to put away the 13th -month wages and use the special tax rate to calculate the tax liability, and then subtract the special tax credit for the 13th-month wages. The tax burden and tax liability also increase with wages increase due to the progressive tax rate. The shape of tax liability and tax burden lines are very similar to previous one. In this chart, a slower growth rate can be observed, which gradually decreases. We can see from chart.4.3, compared with chart.4.2, the tax burden is relatively lower than the previous tax burden of 12 months wages, the reason maybe the tax rate for 13th-month wages is relatively lower. And for taxpayer with 13th- month wages, there is an additional allowance for children which reduce the tax liability.

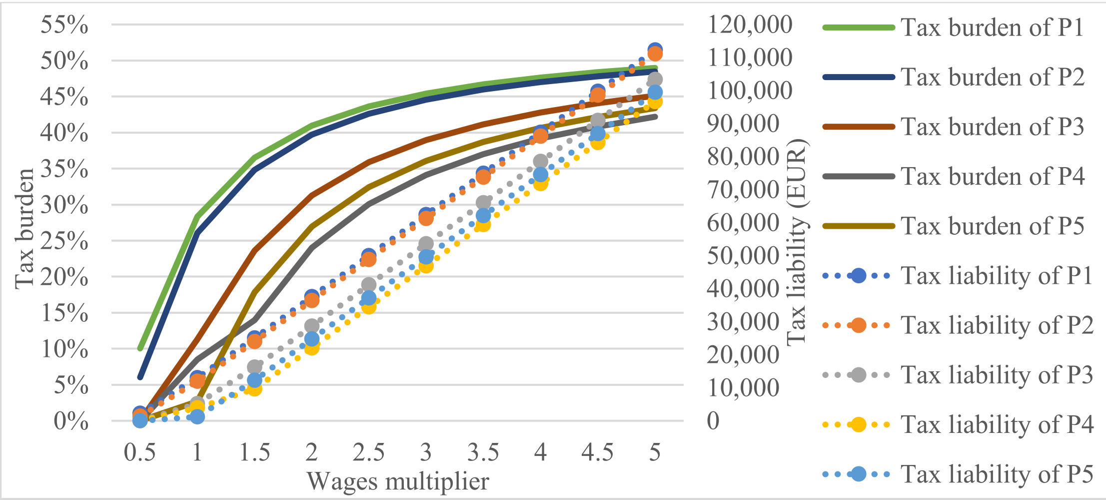
4.1.2 Personal Income Tax Calculation in Belgium

The calculation of personal income tax in Belgium is based on the information in chapter 3.2. The annual average wage in Belgium is EUR 45,830 in 2018.

The tax calculation includes federal tax and regional tax. We calculate federal tax first. We first use income deducts the social security contributions which is 13.07% of the employees' income and it is fully deductible, and then deduct the employment expenses deductions and personal deductions to get the tax base. The couple taxpayer in Belgium tax jointly but calculate separately. If only one spouse has earning income, 30% of his income (max EUR 10,940) is attribute to another spouse and is taxed separately. The tax rate in Belgium is sliding progression tax rate and has four bands. After calculating separately, each spouse tax liability needs to subtract the personal exemptions. The spouse with no income only has basic exemptions and the taxpayer with income have the basic exemptions and the exemptions for children. Then use the exemption table to calculate the real exemptions. The total tax liability is the sum of the tax liability of the two spouse and then use total tax liability subtract allowance to get final tax liability. This is only the federal tax and the regional tax is 24.975% of reduce total tax due. The sum of federal tax and regional tax if the total final tax liability. The net salary is income minus social security contributions, special social security contributions and total final tax liability. The tax burden is the total final tax liability divided by income.

The following table is the tax burden and tax liability of taxpayers with different level of income in Belgium.

Chart. 4.4: Tax burden and tax liability of taxpayers in Belgium.



Source: Own processing.

It is clear from chart.4.4 that both the tax burden and the tax liability with increasing income have been increasing with varying intensity throughout. This is also due to the progressive tax rate for personal income. Another phenomenon is, before wages with multiplier 2.5, the tax burden increases fast; after the wages bigger than 2.5 of the average wages, the growth rate of tax burden decrease. A slower growth rate can be observed, which gradually decreases. This phenomenon due to many reasons, which include the effect of tax deductions, tax rate and tax credits. We will analyse each item in the following thesis. It is also clear from chart.4.4 that the taxation of individual types of taxpayers is very different. Same with the situation in Austria, the taxpayer P1 has the highest tax burden and tax liability, the taxpayer P4 has the lowest tax liability and tax burden. The reason is taxpayer P1 is a single person with no deductions for children, taxpayer P4 have four children which means more personal deductions and personal exemptions. Belgium has tax credits for the family with old people, this policy makes the tax burden and tax liability of taxpayer P3 and P5 different.

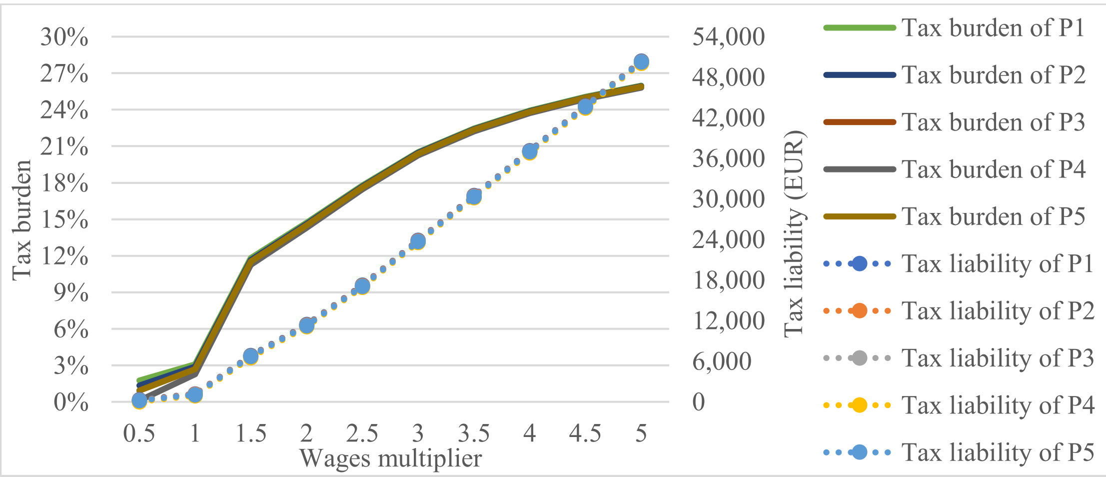
4.1.3 Personal Income Tax Calculation in Finland

The calculation of personal income tax in Finland is based on the information in chapter 3.3. The annual average wage in Finland is EUR 38,818 in 2018.

Earned income of resident individuals in Finland is subject to national income tax at progressive rates and to municipal and church taxes at flat rates. We calculate national income tax first. We first use income deducts the social security contributions which is 9.79 % or 11.29% of the employees' income base on the employees' situation, and it is fully deductible. And subtract the employment expenses deductions to get the tax base (there is no personal deductions suitable for the taxpayers). The national tax rate in Finland is sliding progressive tax rate and has 4 bands, we calculate the tax liability base on the tax base and tax rate. The tax credit is only to the person with income minus EUR 2,400, tax liability subtract tax credit can get the national tax liability. In Finland, taxpayer also need to pay municipal tax liability (we assume taxpayer live in Helsinki which has the rate 18% of income), church tax (Helsinki 1% of income) and TV tax (2.5 % of income and up to EUR 163). The total final tax liability is the sum of national tax liability, municipal tax liability, church tax and TV tax. the net salary is the income minus social security contributions and total final tax liability. The tax burden is final tax liability divided by income.

The following table is the tax burden and tax liability of taxpayers with different level of income in Finland.

Chart. 4.5: Tax burden and tax liability of taxpayers in Finland.



Source: Own processing.

Chart. 4.5 shows the tax burden and tax liability increase with wages increase for all taxpayers. This is due to the progressive tax rate for personal income. The tax burden of low- and middle- income taxpayer increase faster than the taxpayer with high income. Especially for income between average wage and 1.5 times average wage, the tax burden increases very fast with wage increase. In Finland legislation, low- and medium- income taxpayer have some tax credit, this is the main reason that tax burden of 0.5 times average wage taxpayers to average wages taxpayers increase slowly. A slower growth rate of tax burden can be observed, which gradually decreases. It is also clear from chart.4.5 that the taxation of individual types of taxpayers is identical. We can see from chart.4.5 that all lines almost coincide. Also, we can see the tax burden and liability of P3 and P5 are same shows there is no tax policy to support the family with old people. It shows that the tax burden of different taxpayers with same income are very similar, which reveals that the tax deductions, allowance and credits for family with children are low. It means in Finland, the taxpayers with different family structure need to pay almost the same tax liability. Indeed, the Finland legislation does not allow much tax deductions or tax credits to take account of the social situation of the taxpayer and they don’t use some tax instruments to support the fertility rate and taking care of old people.

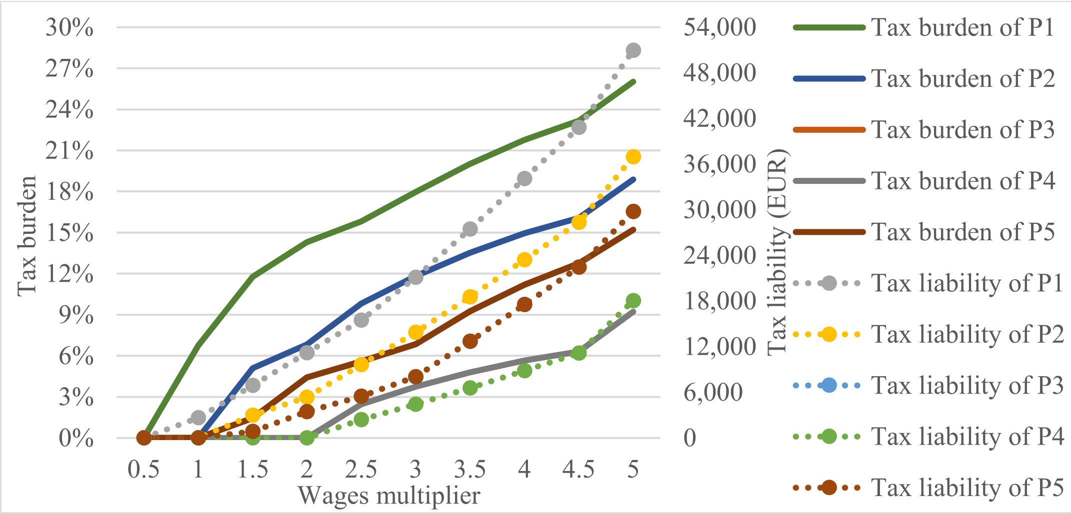
4.1.4 Personal Income Tax Calculation in France

The calculation of personal income tax in France is based on the information in chapter 3.4. The annual average wage in France is EUR 39,169 in 2018.

We first use income deducts the social tax and social security contributions. Social tax includes the generalized social contribution (CSG), the social security deficit contribution (CRDS) and the social levies. The social security contributions are based on the ceilings and it is fully deductible. And then subtract the employment expenses deductions and personal deductions to get the tax base. The tax rate in France is sliding progressive tax rate and combine the tax coefficients, which means take the taxpaying capacity of the household into consideration. Total income is split according to family members, it means the more children will pay less tax. We can also use simple computation formula to calculate tax liability. The sum of the tax liability and high-income tax is the total tax liability. Tax liability subtract some tax credits and tax relief is the total final tax liability. The net salary is income minus social tax, social security contribution and total final tax liability. Tax burden is total final tax liability divided by income.

The following table is the tax burden and tax liability of taxpayers with different level of income in France.

Chart. 4.6: Tax burden and tax liability of taxpayers in France.



Source: Own processing.

Chart 4.6 shows the tax liability and tax burden increase with wages increase. This is due to the progressive tax rate for personal income. The tax burden and tax liability of taxpayer P1 is the highest and the taxpayer P4 is the lowest. The reason is taxpayer P1 is a single person and he cannot get tax deductions and tax credits for children. Taxpayer P4 are spouse with four children, he can get some personal deductions for children and tax credits for children's school expenses. We can see the tax burden and tax liability are very different between different taxpayers, it shows France use many tax deductions and credits to support the family with children and encourage fertility. And the intensity of these measures is large enough to increase the gap of tax burden of different income. The tax burden and liability of P3 and P5 are same shows there is no tax policy to support the family with old people. For the taxpayers with 0.5 times average wage to 1.5 times average wage, many taxpayers have zero tax burden which means they don't need to pay tax. Though the model is theoretical model and the data are not so accurate, we also not take consideration the withholding tax and prepayment tax. This result still reveals that for low income person, there are many tax policies to reduce their tax burden and the tax policy have taken consideration to reduce the gap between rich and poor.

4.1.5 Personal Income Tax Calculation in Germany

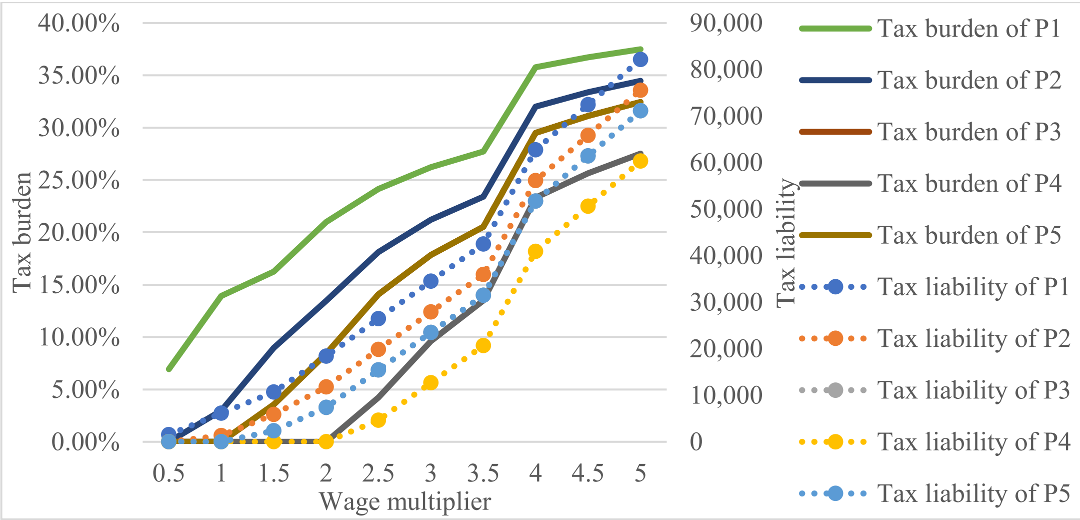
The calculation of personal income tax in Germany is based on the information in chapter 3.4. The annual average wage in Germany is EUR 43,836 in 2018.

We first use income deducts the social security contributions which is 19.625% or 19.65% of the employees' income and 88% of them are deductible (max EUR 2,800).

And then subtract the employment expenses deductions, personal deductions and standard deductions to get the tax base. The tax rate in Germany is sliding progressive tax rate and has 4 bands, we calculate the tax liability base on the tax base and tax rate. In Germany there is a solidarity surcharge which is 5.5% of tax liability. we use the tax liability add the solidarity surcharge and minus tax allowance is the total final tax liability. Net salary is income deduct social security contribution and total final tax liability. Tax burden is total final tax liability divided by income.

Because the couple taxpayer can choose to tax separately or jointly, we calculate the tax of both situations. The following table is the tax burden and tax liability of taxpayers with different level of income in Germany that couple tax separately.

Chart. 4.7: Tax burden and tax liability of taxpayers in Germany (Couple tax separately).

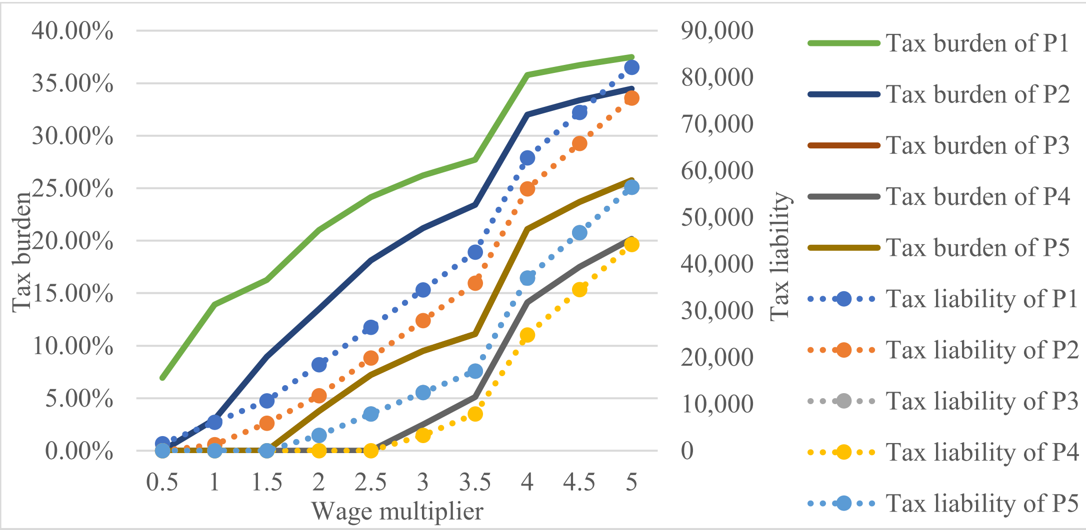


Source: Own processing.

It is clear from chart.4.7 that both the tax burden and the tax liability increase with increasing income. This is due to the progressive tax rate for personal income, the more income individual gets, the more tax liability they have. The tax burden and tax liability of different taxpayers are relatively different shows the deductions and allowance effectively support the family with children. Taxpayer P1 has the highest tax burden and tax liability, taxpayer P4 has the lowest tax burden and tax liability. Taxpayer P1 is a single person, he can get only tax deductions for employment expenses and the low standard deductions. For taxpayer P4, he can get not only the employment expenses deductions and standard deductions, he is also subject to the personal deductions for childcare, education expenses and child allowance. Compared with taxpayer P2 and P3, taxpayer P4 has more children means larger amount of tax deductions to reduce the tax base. This leads to taxpayer P4 have lowest tax burden and tax liability no matter the amount of his income. For both tax burden and tax liability, the two lines of taxpayer P3 and P5 coincide. The tax burden and liability of P3 and P5 are same shows there is no tax policy to support the family with old people.

For Germany spouse taxpayers, married couples can file tax returns jointly or separately. Here we calculate the tax burden and tax liability if spouse tax jointly. The following table is the tax burden and tax liability of taxpayers with different level of income in Germany that couple tax jointly.

Chart. 4.8: Tax burden and tax liability of taxpayers in Germany (Couple tax jointly).



Source: Own processing.

There is no doubt that the tax burden and tax liability also increase with wages increase. It is due to the progressive tax rate for personal income. The overall shape and trend of chart.4.8 is similar to chart.4.7, and the reasons for these trends and phenomena are not explained in detail here.

Compared with couple tax separately, the tax burden and tax liability of couple tax jointly is relatively lower. The main difference reflects on the personal deductions and allowance are higher if tax jointly than separately. Everyone's tax situation is different and can be complex. Some experts have some research and the results reveal that in most cases and in most countries, the financial benefits of filing a joint tax return will outweigh filing separately. Ultimately, after we calculate the tax in Germany, filing a joint return is typically more beneficial, so we suggest the couple to tax jointly in Germany.

4.2 Comparison According to Tax Items

This chapter will focus on the real data of taxpayer P1 to P5. We mainly compare the data of six items of taxpayer with average wages. These tax items include social security contributions, tax deductions, tax credits, tax liability, net salary and tax burden of the average wage taxpayer in these five selected countries.

4.2.1 Social Security Contributions

Social security contributions are compulsory payments paid to general government that confer entitlement to receive a future social benefit. It is a very important item in personal income tax. The comparison of the social security contributions of five taxpayers with average wages in different countries is in table. 4.1.

Tab. 4.1: The comparison of social security contributions of the five taxpayers in five selected countries (EUR).

Social security contribution	Austria (12 months wages)	Austria (13 months wages)	Belgium	Finland	France	Germany (couple tax separately)	Germany (couple tax jointly)
P1	8,111	7,487	5,990	3,800	4,759	8,614	8,614
P2	8,111	7,487	5,990	3,800	4,759	8,603	8,603
P3	8,111	7,487	5,990	3,800	4,759	8,603	8,603
P4	8,111	7,487	5,990	3,800	4,759	8,603	8,603
P5	8,111	7,487	5,990	3,800	4,759	8,603	8,603

Source: Own processing.

In Austria, Belgium, Finland and France, the social security contributions rate is same no matter how many family members or children a taxpayer has. So the data are same for P1 to P5 in these four countries. However, in Germany, the childless individuals have the higher rate with 19.65% than the taxpayer with children with 19.625%. taxpayer P1 is the single person with no children, so he has higher social security contributions.

We can see from the table that for all taxpayers, Germany has the highest social security contributions and Finland has the lowest on the condition that taxpayer has the average wages. The average wages of Germany in 2018 is EUR 43,836, and in Finland is EUR 38,818. So the social security contributions are reasonable.

4.2.2 Tax Deductions

Tax deductions are the items reduce taxable income. In this thesis, the deductions usually include employment expenses deductions and personal deductions. By using deductions, the country can encourage certain activities of taxpayers such as increasing employment rate and increasing fertility rate. The following table is the comparison of tax deductions of the five taxpayers in five selected countries.

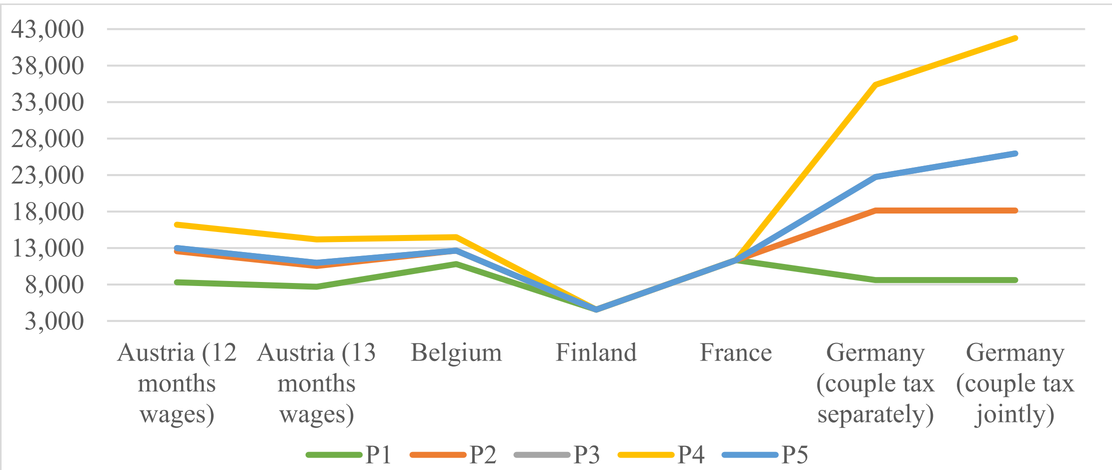
Tab. 4.2: The comparison of tax deductions of the five taxpayers in five selected countries (EUR).

Total deductions (include social security contribution deduction)	Austria (12 months wages)	Austria (13 months wages)	Belgium	Finland	France	Germany (couple tax separately)	Germany (couple tax jointly)
P1	8,303	7,679	10,800	4,550	11,339	8,616	8,616
P2	12,565	10,536	12,640	4,550	11,339	18,134	18,134
P3	13,005	10,976	12,640	4,550	11,339	22,742	25,954
P4	16,185	14,156	14,479	4,550	11,339	35,342	41,766
P5	13,005	10,976	12,640	4,550	11,339	22,742	25,954

Source: Own processing.

Taxpayer P1 is the single person, in all countries he can only have the employment expenses deductions and standard lump-sum personal deductions. We can see P1 has the lowest deductions compared with other taxpayers. P4 has 4 children and has the most children in these five taxpayers, usually he can not only can get employment expenses deductions and standard personal deductions, he can also get more personal deductions. Such as in Austria, they have deductions of childcare deductions, child tax free amount; In Belgium they have child custody expenses deductions; In Germany they have child education expenses deductions, childcare deductions, child allowance and so on. In Finland and France, all taxpayers from P1 to P5 have the same tax deductions, the reason is there is not much tax policy and tax deductions to support the family with children.

Chart. 4.9: The comparison of tax deductions of the five taxpayers in five selected countries (EUR).



Source: Own processing.

For taxpayer P1 who is only a single person, we can see he gets the highest tax deductions in France and lowest tax deductions in Finland. The deductions in these two countries only focus on employment expenses deductions. In France the employment deductions our calculation use lump-sum deductions of 10% of the income, with a maximum EUR 12,502. In Finland the lump-sum employment expenses deduction is EUR 750. Also, in France, the family coefficient system which combines the progressive tax rate with the taxpaying capacity of the household also have effect to support the family with children. The taxpayer P3 and P5 have the same tax deductions, we can see from chart.4.9 that two lines coincide. This means in all these five countries, there is no tax deduction to support the family with old parents. For taxpayer P2 P3 P4 and P5, all of them have the highest tax deduction in Germany. These taxpayers have children in their family, and Germany have lots of items to reduce taxable income focus on family with children.

4.2.3 Tax Credits and Allowance

Tax credits or allowance are items that reduce final tax value. Table. 4.3 shows tax credits and allowance of five taxpayers with average wages in different countries.

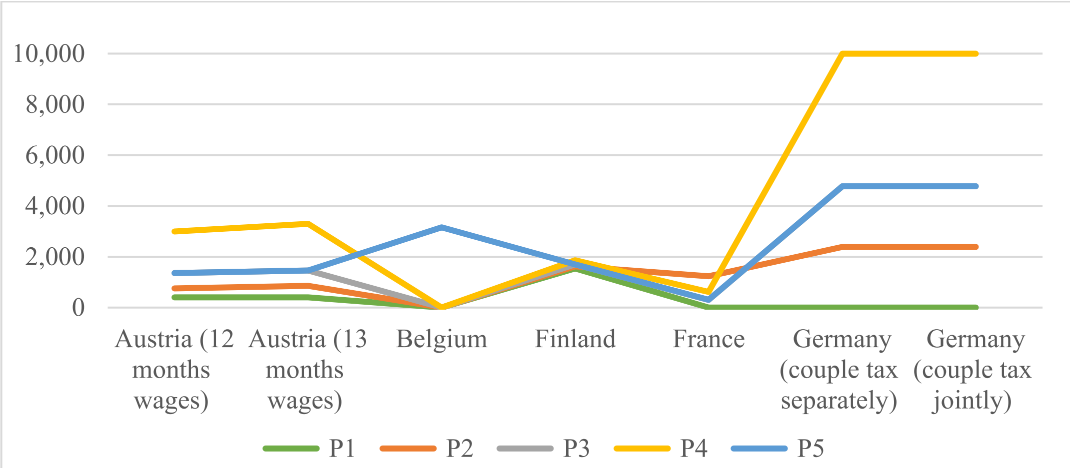
Tab. 4.3: The comparison of tax credits and allowance of the five taxpayers in five selected countries (EUR).

Tax credits and allowance	Austria (12 months wages)	Austria (13 months wages)	Belgium	Finland	France	Germany (couple tax separately)	Germany (couple tax jointly)
P1	400	400	0	1,540	0	0	0
P2	750	850	0	1,620	1,229	2,388	2,388
P3	1,361	1,461	0	1,700	306	4,776	4,776
P4	2,996	3,296	0	1,860	612	9,996	9,996
P5	1,361	1,461	3,160	1,700	306	4,776	4,776

Source: Own processing.

The tax credits in Austria mainly include personal allowance and family allowance, and both items focus mainly on the child credits. This condition lead to the credits of taxpayers P1 to P5 different in Austria. A special tax credits for 13th- months wages for child makes the tax credits of 12-months and 13-months different. In Belgium there has a tax exemption which include basic exemptions and exemptions for children when calculate tax liability of couple separately. So only P5 has the tax credits for taking care of old parent. The tax credits of Finland, France and Germany all focus on the child credits, so P4 have more tax credits.

Chart. 4.10: The comparison of tax credits and allowance of the five taxpayers in five selected countries (EUR).



Source: Own processing.

P1 has the highest tax credits in Finland because of the credits for low-and-medium-income taxpayer. Low-and-medium-income earners (income less than EUR 41,000) can get credits of 12% on that part of the taxpayers' net earned income that exceeds EUR 2,500 (max EUR 1,540). P2 P3 P4 and P5 have the highest tax credits in Germany. We have mentioned before that Germany has large tax credits for family with children.

4.2.4 Total Final Tax liability

In this subchapter we compare the total final tax liability of taxpayers with average wages in different countries.

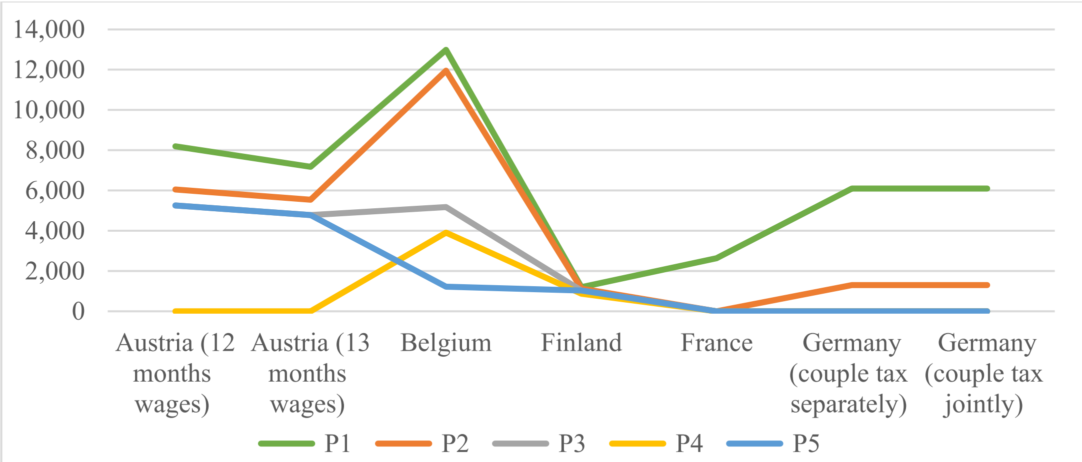
Tab. 4.4: The comparison of total final tax liability of the five taxpayers in five selected countries (EUR).

Total final tax liability	Austria (12 months wages)	Austria (13 months wages)	Belgium	Finland	France	Germany (couple tax separately)	Germany (couple tax jointly)
P1	8,193	7,178	12,987	1,200	2,642	6,105	6,105
P2	6,052	5,543	11,953	1,120	0	1,310	1,310
P3	5,256	4,778	5,177	1,040	0	0	0
P4	0	0	3,908	880	0	0	0
P5	5,256	4,778	1,228	1,040	0	0	0

Source: Own processing.

For all countries, taxpayer P1 has the highest tax liability. P1 is the single person with no child, the reason is single person doesn't have too much tax deductions and credits. With the number of children increase, the tax liability decrease. P4 have 4 children so he has the lowest tax liability. P5 in Belgium has less tax liability than P3 because the family need to take care of old parent and has more tax credits. What we can know more is in France and Germany, taxpayers with average wages and have children can have zero tax liability.

Chart. 4.11: The comparison of total final tax liability of the five taxpayers in five selected countries (EUR).



Source: Own processing.

From the chart.4.11 we can see P1 P2 P3 and P4 have the highest tax liability in Belgium. One reason is in 2018, the average wage in Belgium is the highest in these five countries. The second reason is Belgium has lower lever tax deductions and credits than other countries. And last reason is the tax rate of Belgium is higher than other country. We can know from previous analyse, the taxpayers need to pay tax from EUR 0 income and the first level of tax rate is 25%. The tax level of Belgium is relatively high among these five countries. P2 has zero tax liability in France, P3 and P5 has zero tax liability in France and Germany, P4 has zero tax liability in Austria. All these data show these countries have strong tax policy to encourage fertility.

4.2.5 Net Salary

This subchapter compares the net salary of taxpayers with average wages after they pay taxes, social security contributions and so on. The net salary is the real amount that taxpayers can get per year after they pay all they need to pay.

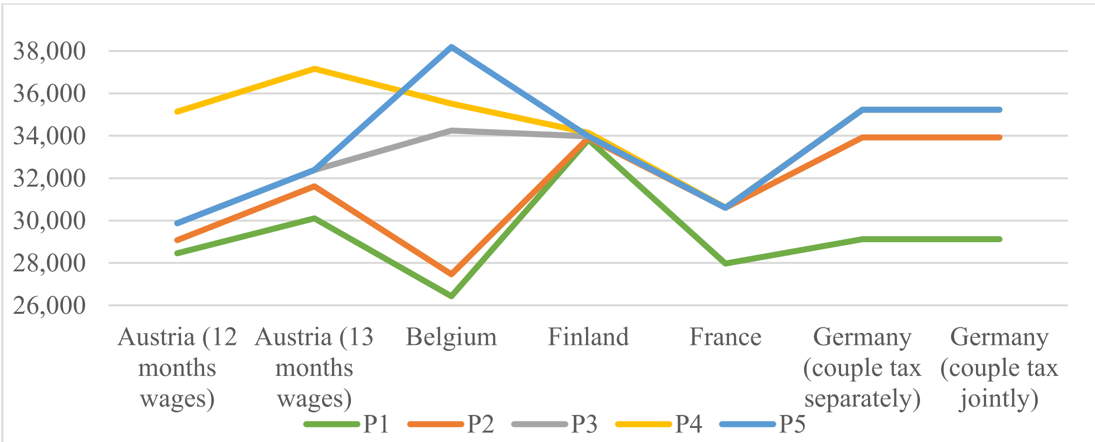
Tab. 4.5: The comparison of net salary of the five taxpayers in five selected countries (EUR).

Net salary	Austria (12 months wages)	Austria (13 months wages)	Belgium	Finland	France	Germany (couple tax separately)	Germany (couple tax jointly)
P1	28,460	30,099	26,431	33,818	27,968	29,118	29,118
P2	29,079	31,671	27,466	33,898	30,611	33,924	33,924
P3	29,874	32,382	34,241	33,978	30,611	35,233	35,233
P4	35,131	37,160	35,511	34,138	30,611	35,233	35,233
P5	29,874	32,382	38,191	33,978	30,611	35,233	35,233

Source: Own processing.

Consistent with tax liability, P1 has the lowest net salary and P4 has the highest salary in most countries. The reason we have mentioned before

Chart. 4.12: The comparison of net salary of the five taxpayers in five selected countries (EUR).



Source: Own processing.

We know advance that average wages in 2018 of Belgium is the highest in these five countries and Finland is the lowest. Among these five countries, P1 has highest net salary in Finland, P2 and P3 have highest net salary in Germany, P4 has highest net salary in Austria and P5 has highest net salary in Belgium. It means single taxpayer can get more benefit in Finland, family with children can get more benefits in Austria and Germany, and the family with children and old parents can get more benefit in Belgium. In addition to the reason we have mentioned before, we need to consider the reason of social security contribution. Both Austria and Germany have high social security contribution rate.

4.2.6 Tax Burden

Tax burden is the percentage of tax liability of salary. The average salary of different taxpayers in different countries is different, tax burden is the best indicator to compare the tax level. The following table and chart are the tax burden of taxpayers with average wages in these five countries.

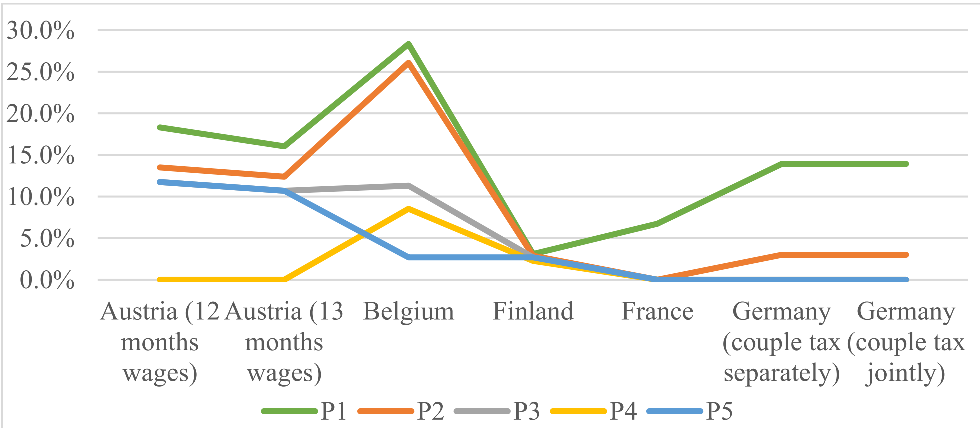
Tab. 4.6: The comparison of tax burden of the five taxpayers with average wages in five selected countries.

Tax burden	Austria (12 months wages)	Austria (13 months wages)	Belgium	Finland	France	Germany (couple tax separately)	Germany (couple tax jointly)
P1	18.3%	16.0%	28.3%	3.1%	6.7%	13.9%	13.9%
P2	13.5%	12.4%	26.1%	2.9%	0.0%	3.0%	3.0%
P3	11.7%	10.7%	11.3%	2.7%	0.0%	0.0%	0.0%
P4	0.0%	0.0%	8.5%	2.3%	0.0%	0.0%	0.0%
P5	11.7%	10.7%	2.7%	2.7%	0.0%	0.0%	0.0%

Source: Own processing.

For all taxpayers, the more children the family has, the less the tax burden. P1 is the single person, he has the highest tax burden compare with other taxpayer in all countries. P4 has four children and P3 has two children, we can see the tax burden of P4 always less than P3. P5 has same amounts of children with P3, but P5 has an old parent to take care of. Only in Belgium there has the tax policy focus on the family with old parents, so the tax burden of P5 in Belgium is less than P3. Except Belgium, P5 and P3 have same tax burden in other countries.

Chart. 4.13: The comparison of tax burden of the five taxpayers with average wages in five selected countries.



Source: Own processing.

Taxpayer P1 P2 and P4 have the highest tax burden in Belgium. In Belgium, the single taxpayer can only have the standard employment expenses deduction and basic personal exemption. The family with children can get personal deductions for children but the amount is relatively lower than other countries. The personal exemptions for children also need to use the personal exemptions brackets to calculate the real amount of exemptions. This policy greatly reduces real amount of the tax deductions and credits. As for tax rate in Belgium, the first level tax rate 25% is for income from EUR 0 to EUR 13,250. It is the only county that tax from EUR 0. So taxpayers have highest tax burden in Belgium. P5 has highest tax burden in Austria. The reason is P5 has tax credits for old parent in Belgium, and the fist level of tax rate 25% in Austria is same with Belgium but higher than Finland, France and Germany.

Under the premise that the taxpayers have the average salary, P2 has zero tax burden in France, P3 and P5 have zero tax burden in France and Germany, P4 has zero tax burden in Austria, France and Germany. These data reveal that tax policies in Austria, France and Germany have strongly encouraged fertility.

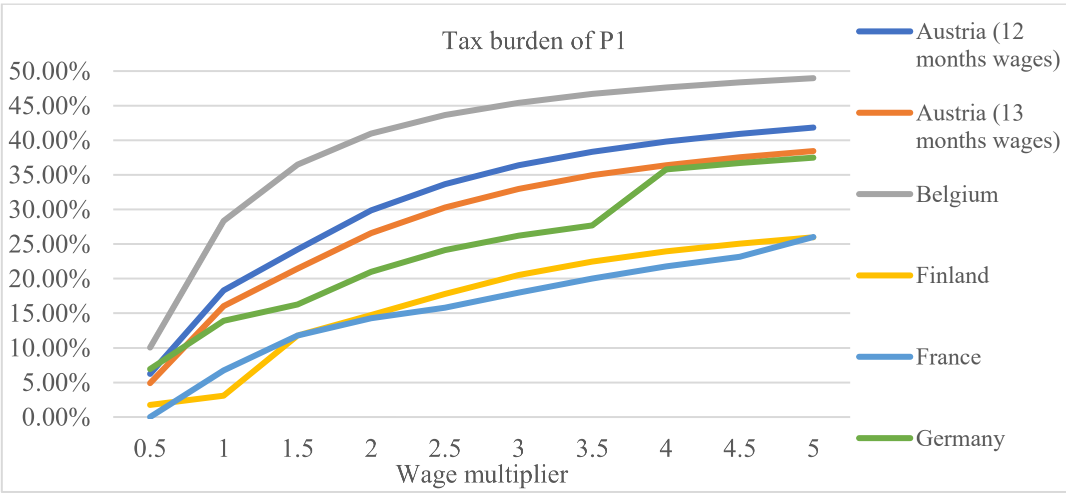
4.3 Comparison Tax Burden of Taxpayers

Because tax burden is the best indicator to compare the tax level. In this subchapter, we compare the tax burden of different taxpayers with different wages.

4.3.1 Comparison Tax Burden of Taxpayer P1

The first tax subject P1 is the single taxpayer with no children. The following chart is the tax burden of P1 with different wages in different countries.

Chart. 4.14: The comparison of tax burden of the taxpayer P1 with different wages in five selected countries.



Source: Own processing.

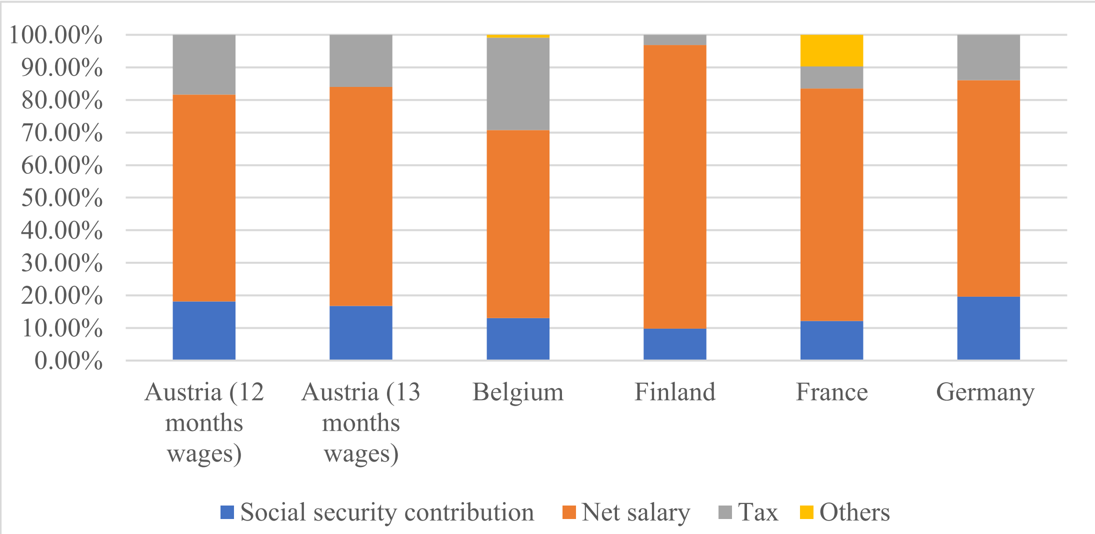
From chart.4.14, we can see the increasing tendency of the tax burden with increasing of income. For both lowest income and highest income taxpayers, the highest tax burden is in Belgium and the lowest tax burden is in France. For single taxpayer P1 in Belgium, he needs to pay social security contribution at a rate of 13.07%, and both national tax and regional tax. He can’t get any personal deductions and allowance. In

France, though the tax is low, the social security contribution is high and social tax is high.

Then we can compare tax burden difference of highest income (5 times average wage) and lowest income (0.5 times average wage). The highest tax burden difference is in Belgium and the value is about 38.93%. The second highest tax burden difference is in Austria and then Germany and Finland. The lowest tax burden difference is in France and the values is about 24.23%. It shows for single taxpayer, the highest income and lowest income tax burden is very different in Belgium, in France the tax burden difference is small.

The following two charts reflect the proportion of the taxpayer P1 wages. We compare the situation of taxpayer P1 with average wage and double average wage.

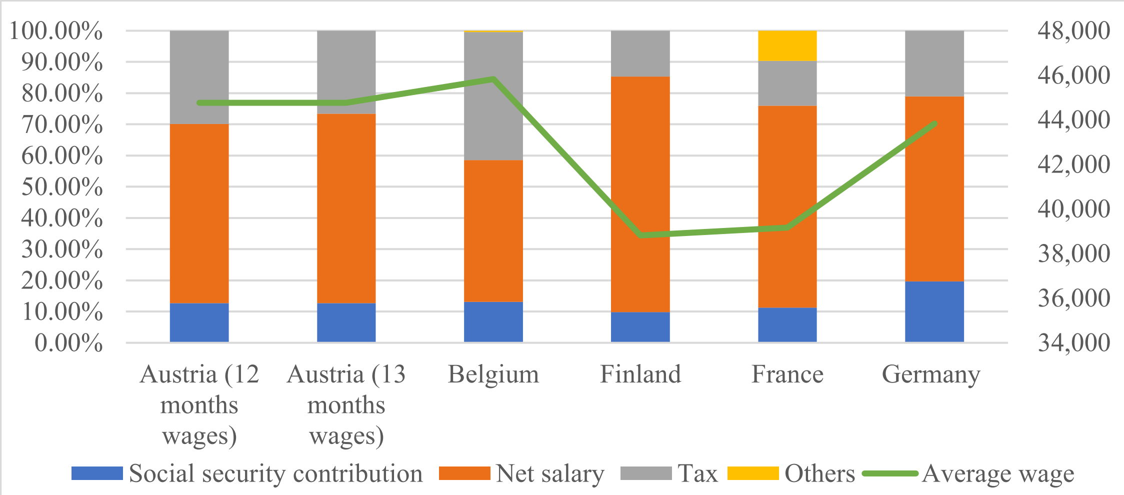
Chart. 4.15: The proportion of taxpayer P1 wages (average wages) in five selected countries.[34]



Source: Own processing.

[34] For taxpayer in Belgium, the part 'others' means the special social security contribution which real amount is according to the family's real net income and it is collected by deductions from monthly net salary. For taxpayer in France, the 'others' means social tax which include the generalized social contribution (CSG), the social security deficit contribution (CRDS) and the social levies.

Chart. 4.16: The proportion of taxpayer P1 wages (double average wages) in five selected countries.



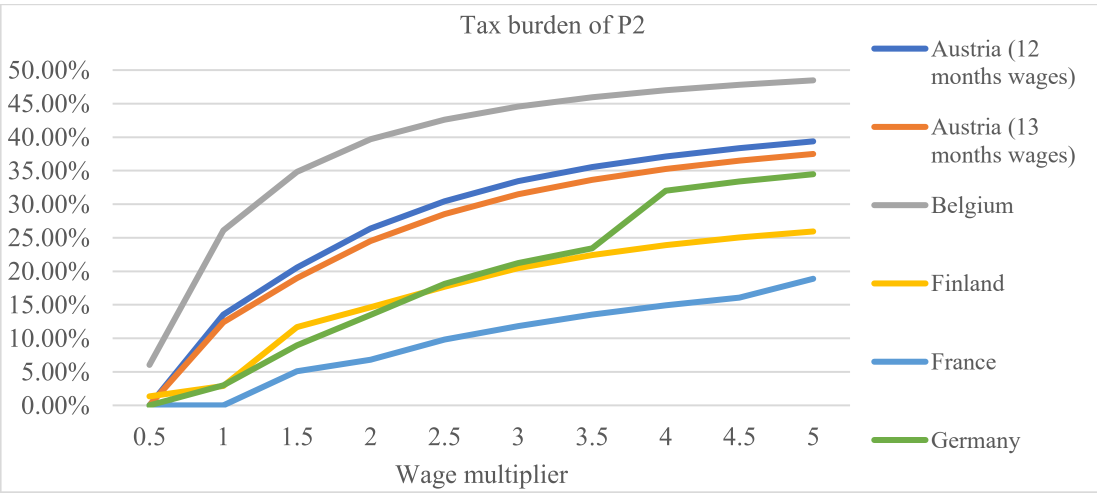
Source: Own processing.

It can be seen from chart.4.15 and chart.4.16 that taxpayer P1, both average wage and double average wage, has highest social security contributions in Germany and lowest social security contributions in Finland. We have compared social security contribution in chapter 4.2.1. The highest net salary is in Finland and lowest is in Belgium. This is the result of the combined effects of social security contributions, tax deductions, tax credits and tax rate.

4.3.2 Comparison Tax Burden of Taxpayer P2

The second taxpayer P2 is a single taxpayer with one child. The following chart is the tax burden of P2 with different wages in different countries.

Chart. 4.17: The comparison of tax burden of the taxpayer P2 with different wages in five selected countries.



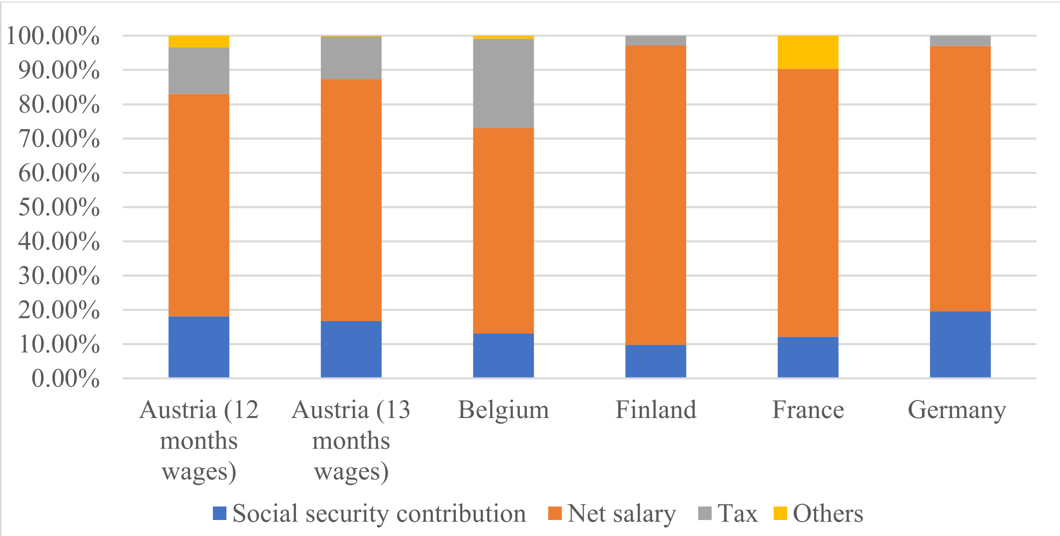
Source: Own processing.

From Chart 4.17, we can see with income increase, the tax burden is also increase. For both lowest income and highest income taxpayers, the highest tax burden is in Belgium and the lowest tax burden is in France. Though taxpayer P2 can get personal deductions for child custody expenses and personal exemptions for child in Belgium, the tax burden is still high. In France, P2 can get some tax credits for child. And the tax calculation uses the family coefficient system which take the taxpaying capacity of the household into consideration. This system greatly reduces the tax burden of taxpayer with child.

The slope of the line is highest in Belgium and lowest in France. It means the tax burden difference of highest income and lowest income is highest in Belgium and lowest in France.

The following two charts reflect the proportion of the taxpayer P2 wages.

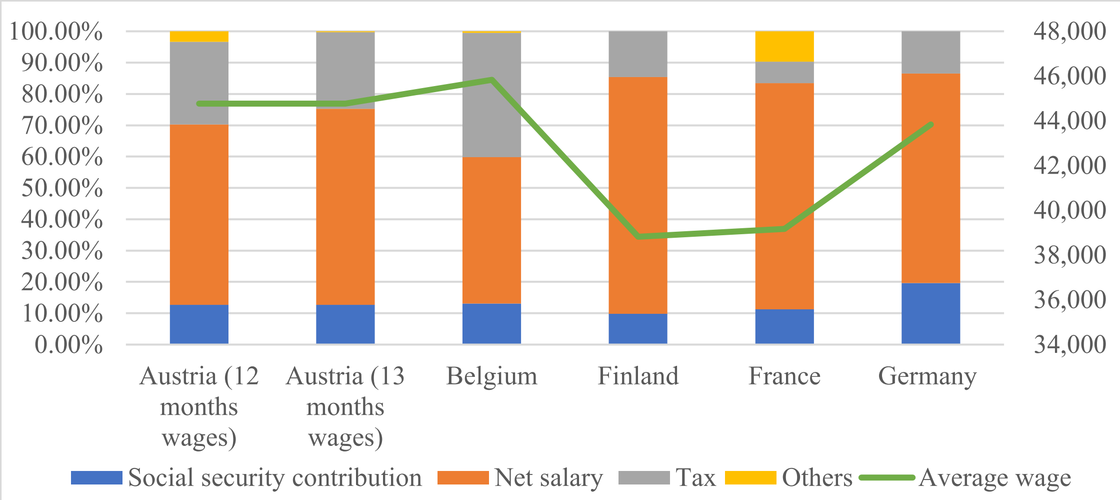
Chart. 4.18: The proportion of taxpayer P2 wages (average wages) in five selected countries.[35]



Source: Own processing.

[35] For taxpayer in Austria, the part 'others' means additional health insurance for family members. For taxpayer in Belgium, the part 'others' means the special social security contribution which real amount is according to the family's real net income and it is collected by deductions from monthly net salary. For taxpayer in France, the 'others' means social tax which include the generalized social contribution (CSG), the social security deficit contribution (CRDS) and the social levies.

Chart. 4.19: The proportion of taxpayer P2 wages (double average wages) in five selected countries.



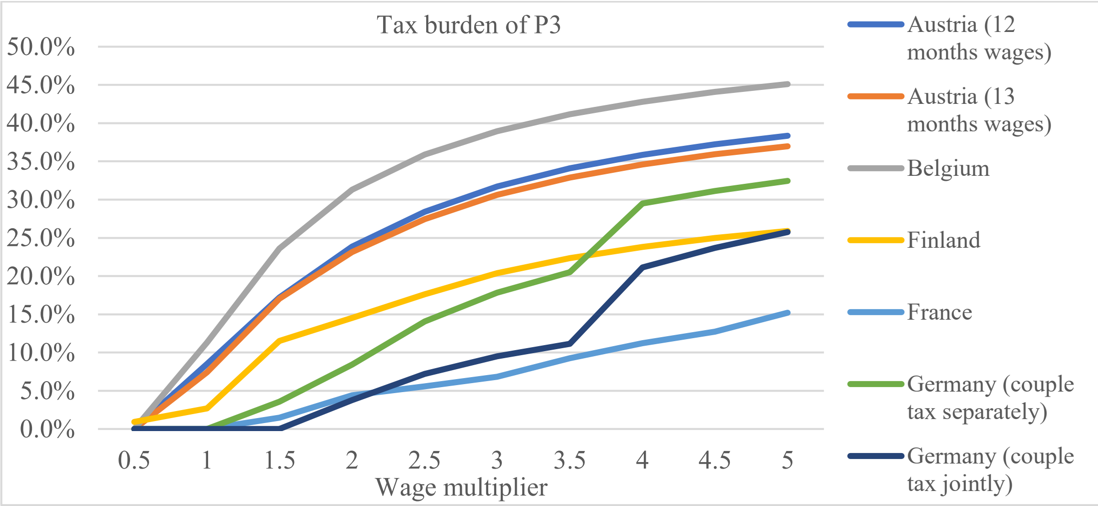
Source: Own processing.

Chart.4.18 and chart.4.19 shows that same with taxpayer P1, taxpayer P2 has highest social security in Germany and lowest social security contributions in Finland. P2 also has highest net salary in Finland and lowest net salary in Belgium. It reflects the effects of tax deductions and tax credits in Finland is larger than in Belgium. P2 is a single mother with one child, she can get employment expenses deductions and tax credits for children in Finland. Also, she has lower social security contribution payment in Finland than in Belgium.

4.3.3 Comparison Tax Burden of Taxpayer P3

The third tax subject P3 is a married spouse and only the husband has income. They have two children. The following chart is the tax burden of P3 with different wages in different countries.

Chart. 4.20: The comparison of tax burden of the taxpayer P3 with different wages in five selected countries.



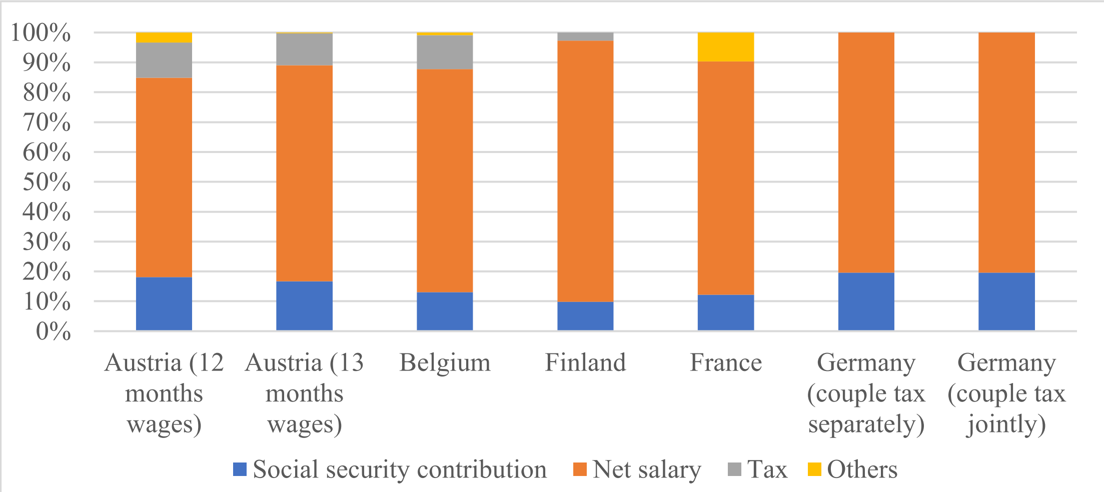
Source: Own processing.

We can see from chart.4.20, similar to P2, for highest income taxpayers P3 (5 times average wage), the highest tax burden is in Belgium and the lowest tax burden is in France. For lowest income taxpayer P3 (0.5 times average wage), he has zero tax burden in Austria, Belgium, France and Germany. P3 is a traditional family with two children, he can get many tax deductions, credits and allowance in most countries. In Austria, there has personal deductions for childcare deductions, child tax free amount, there has personal allowance for child credit allowance, child alimony tax credit and other child allowance. In Belgium, there has personal deductions for child custody expenses, personal exemptions for children. In Finland, there has child maintenance payment credits and so on. In France, there has tax credit for childcare, child schooling expense and so on. In Germany, there has personal deductions for childcare, education expenses and child allowance. All these deductions and allowance for children make the taxpayers with lowest income have zero tax burden.

Similar to P2, the tax burden line of Belgium is steep and in France is flatter. It means the tax burden difference of highest income and lowest income is highest in Belgium and lowest in France.

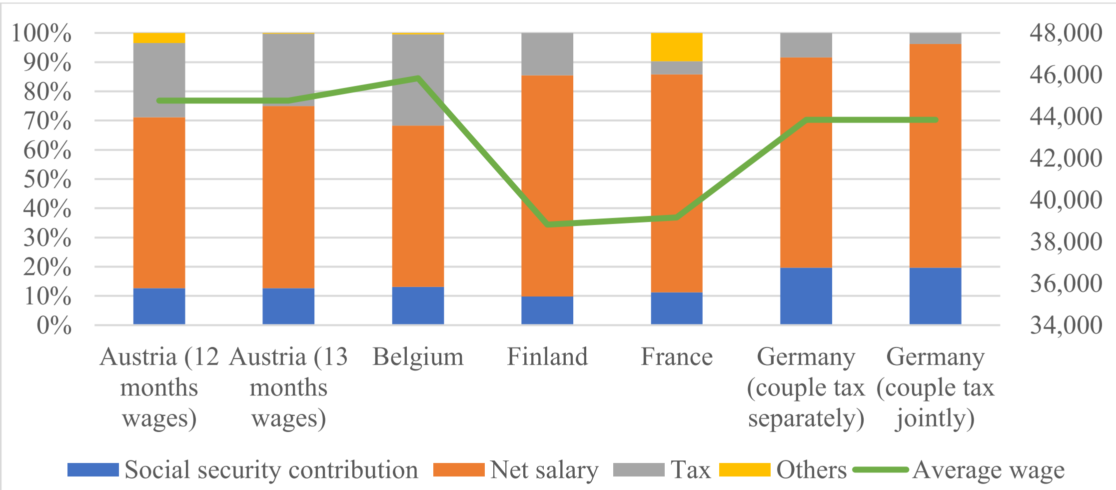
The following two charts reflect the proportion of the taxpayer P3 wages. We compare the situation of taxpayer P1 with average wage and double average wage.

Chart. 4.21: The proportion of taxpayer P3 wages (average wages) in five selected countries.[36]



Source: Own processing.

Chart. 4.22: The proportion of taxpayer P3 wages (double average wages) in five selected countries.



Source: Own processing.

It can be seen from chart.4.21 and chart.4.22 that taxpayer P3, both average wage and double average wage, has highest social security contributions in Germany and lowest social security contributions in Finland. For the net salary, taxpayer P3 with average wage has highest in Finland and lowest in Austria with 12 months wages. The reason is the social security contributions in Austria is higher than in Finland. For low-

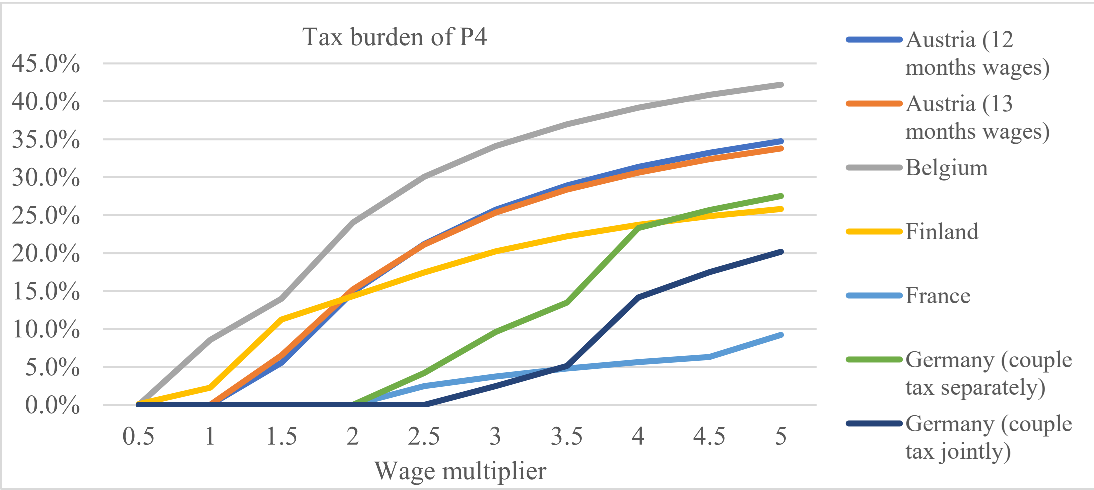
[36] For taxpayer in Austria, the part 'others' means additional health insurance for family members. For taxpayer in Belgium, the part 'others' means the special social security contribution which real amount is according to the family's real net income and it is collected by deductions from monthly net salary. For taxpayer in France, the 'others' means social tax which include the generalized social contribution (CSG), the social security deficit contribution (CRDS) and the social levies.

and medium- income taxpayer, he can get tax credit in Finland. This tax credit can reduce the tax liability. For taxpayer P3 with double average wage, he has highest net salary in Germany if the couple tax jointly. P3 with double average salary has lowest net salary in Belgium. Germany has both tax deductions and tax credits to support family with children. For taxpayer in Belgium, the tax deductions are relatively lower and there are no tax credits to support family with children.

4.3.4 Comparison Tax Burden of Taxpayer P4

P4 is the married spouse and only the husband has income. They have four children. The following chart is the tax burden of P4 with different wages in different countries.

Chart. 4.23: The comparison of tax burden of the taxpayer P4 with different wages in five selected countries.

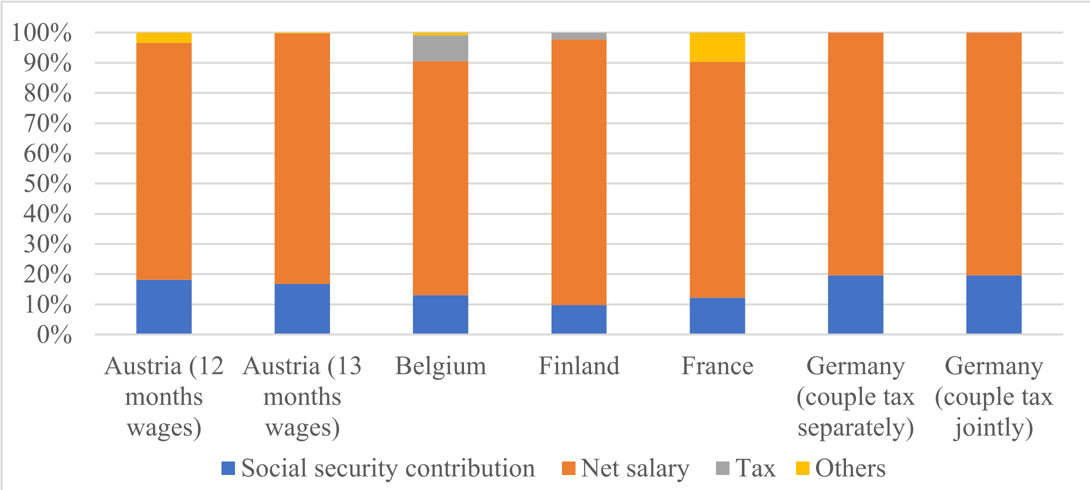


Source: Own processing.

All taxpayers P4 have highest tax burden in Belgium especially the high-income taxpayer. The highest income taxpayer has second highest tax burden in Austria and then Finland, Germany and the lowest tax burden in France. Actually, the tax burden only includes the personal income tax. France have high level of social tax to make up the low tax. And in France they also use high income tax at sliding progression rate from 3% to 4% of income to reduce the gap between poor and rich. Because P4 has four children, the tax deductions, credits and allowance are large. For low income family they usually have zero tax burden. Similar to P2 and P3, the tax burden difference of highest income and lowest income is highest in Belgium and lowest in France.

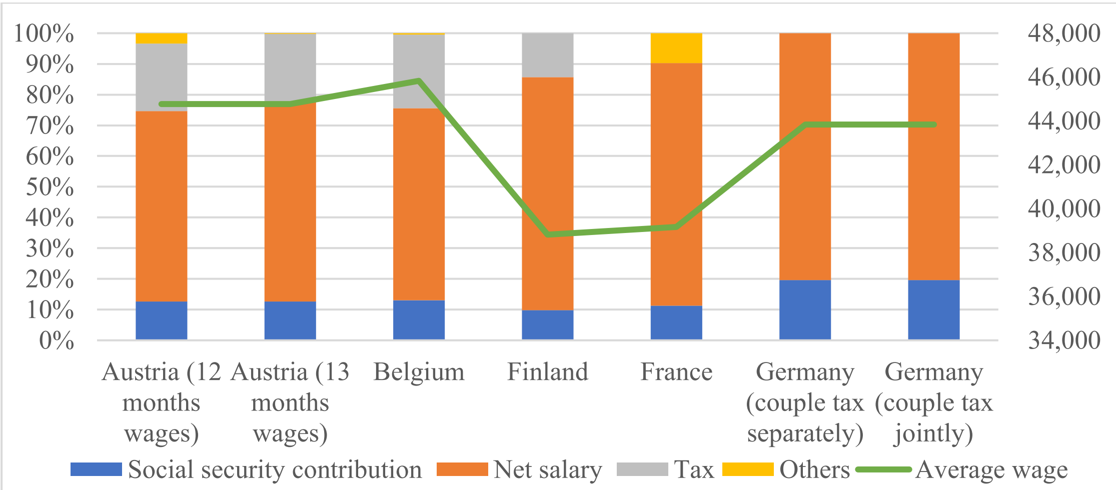
The following two charts reflect the proportion of the taxpayer P1 wages. We compare the situation of taxpayer P1 with average wage and double average wage.

Chart. 4.24: The proportion of taxpayer P4 wages (average wages) in five selected countries.[37]



Source: Own processing.

Chart. 4.25: The proportion of taxpayer P4 wages (double average wages) in five selected countries.



Source: Own processing.

It can be seen from chart.4.24 and chart.4.25 that taxpayer P4, both with average wage and double average wage, has highest social security contributions in Germany and lowest social security contributions in Finland. For average wage taxpayer P4, he has highest net salary in Finland and lowest net salary in Belgium. It shows the more children the taxpayer has, he can get more benefit in Finland. Also, the tax credit for low income taxpayer in Finland reduce the tax liability efficiently. For double average

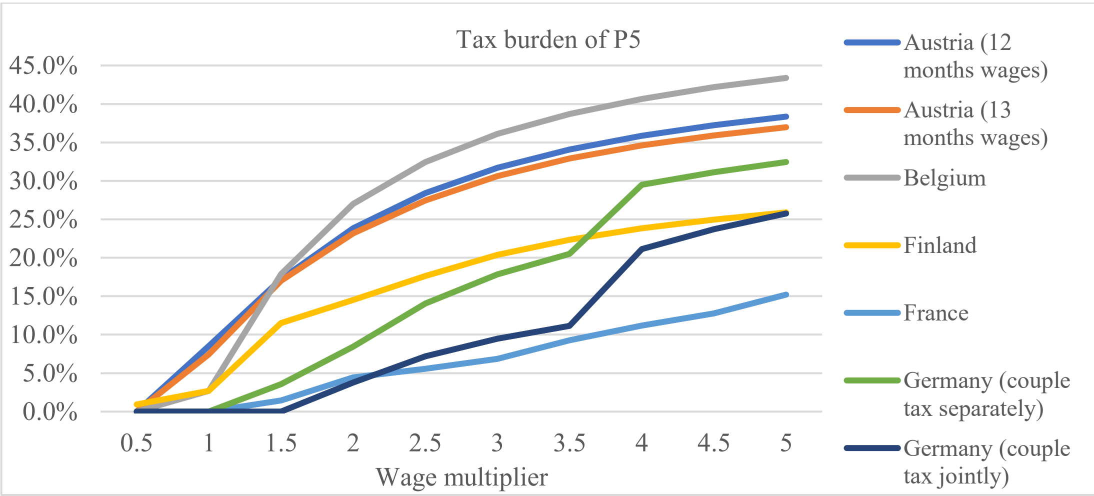
[37] For taxpayer in Austria, the part 'others' means additional health insurance for family members. For taxpayer in Belgium, the part 'others' means the special social security contribution which real amount is according to the family's real net income and it is collected by deductions from monthly net salary. For taxpayer in France, the 'others' means social tax which include the generalized social contribution (CSG), the social security deficit contribution (CRDS) and the social levies.

wage taxpayer P4, he has highest net salary in Germany and lowest net salary in Austria. Germany has both tax deductions and tax credits for children. The taxpayer P4 has four children so he can benefit a lot.

4.3.5 Comparison Tax Burden of Taxpayer P5

The last taxpayer P5 is a spouse with 2 children and need to care for one grandmother. The following chart is the tax burden of P5 with different wages in different countries.

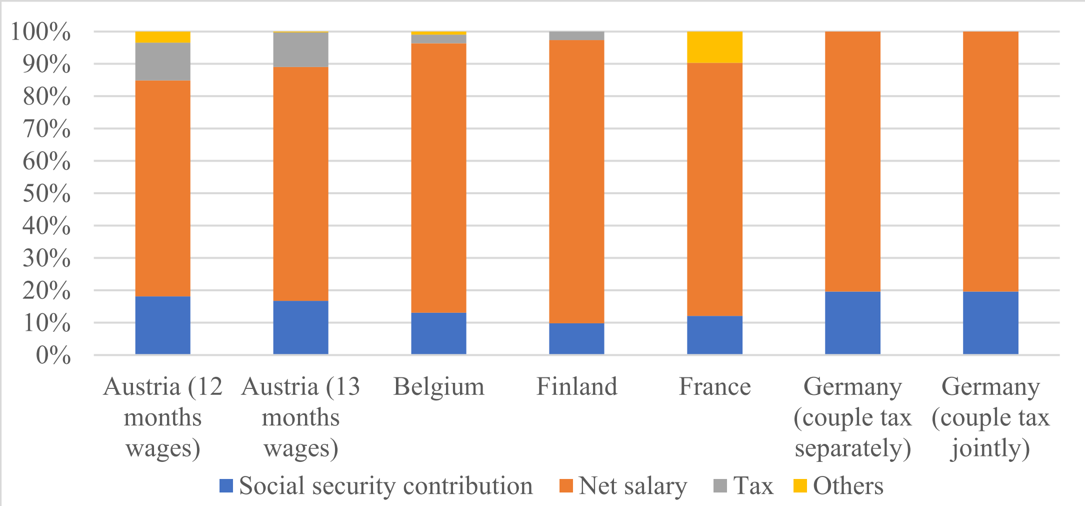
Chart. 4.26: The comparison of tax burden of the taxpayer P5 with different wages in five selected countries.



Source: Own processing.

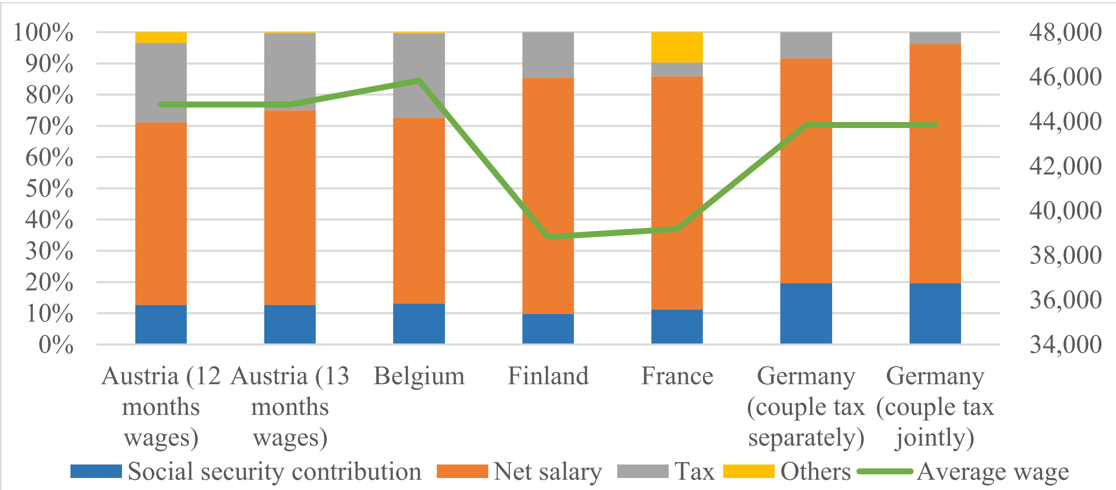
P5 has very similar family structure with P3 except that he needs to take care of the old parent. Only in Belgium there has a tax allowance for taking care of old parents older than 65 years old, the amount is EUR 3,160. So P3 have less tax burden in Belgium than P3. The other data and situation are same with P3.

Chart. 4.27: The proportion of taxpayer P5 wages (average wages) in five selected countries.[38]



Source: Own processing.

Chart. 4.28: The proportion of taxpayer P5 wages (double average wages) in five selected countries.



Source: Own processing.

It can be seen from chart.4.27 and chart.4.28 that taxpayer P5 with average wage has highest net salary in Finland and lowest in Austria with 12 months wages. We have mentioned the social security contributions in Austria is higher than in Finland. For low-and medium- income taxpayer, he can get tax credit in Finland. This tax credit can reduce the tax liability. For taxpayer P5 with double average wage, he has highest net

[38] For taxpayer in Austria, the part 'others' means additional health insurance for family members. For taxpayer in Belgium, the part 'others' means the special social security contribution which real amount is according to the family's real net income and it is collected by deductions from monthly net salary. For taxpayer in France, the 'others' means social tax which include the generalized social contribution (CSG), the social security deficit contribution (CRDS) and the social levies.

salary in Germany if the couple tax jointly. P5 with double average salary has lowest net salary in Austria. Germany has both tax deductions and tax credits to support family with children. For taxpayer in Belgium, the tax deductions are relatively lower and there are no tax credits to support family with children. In Belgium, taxpayer P5 is subject to the tax credits that support family with old people. So, taxpayer P5 has more net salary in Belgium than taxpayer P3.

4.4 Summary

In the previous part of chapter 4, personal income tax was calculated and analysed in Austria, Belgium, Finland, France and Germany. Then we compared the tax of different taxpayers in different countries with different level of income. This chapter will make a summary of the calculation and comparison result.

First, we summarize the taxpayers' tax vertically. The taxpayer P1 is a single person. He always has the highest tax burden compared with other taxpayer P2, P3, P4 and P5. This is because he always has less tax deductions and tax credits than other taxpayer in all these five countries. Taxpayer P2 is the single parent with one child, she can benefit from tax deductions for children in Austria, Belgium and Germany. These deductions can reduce the tax base. She can also benefit from tax credits for children in Austria, Finland, France and Germany. These tax credits reduce the final tax liability. Taxpayer P3 is spouse with two children which means he can get more tax deductions and tax credits than taxpayer P2 in these countries. As for taxpayer P4 with four children, the tax liability of P4 usually is the lowest among the five types taxpayers. It is due to the more children the more tax credits and tax deductions. Taxpayer P5 is very similar to taxpayer P3, the only difference is P5 need to care more the old parent. In these five countries, only Belgium has tax allowance for the family care for old people.

Then, we summary the taxpayers' tax horizontally.

Taxpayer P1 is most taxed in Belgium and the least taxed in France. As wages increase, tax burden gradually increases but the increasing speed decrease. In Belgium, the tax burden for 0.5 times average wage is about 10.05% and tax burden for 5 times average wage is about 48.98%. In France, 0.5 times average wage taxpayer have zero tax burden and tax burden for 5 times average wage is about 26.02%. This phenomenon partly result in P1 with average wage has lowest net salary in Belgium. Taxpayer P1 with average salary has highest net salary in Finland due to the lower social security contributions. The highest net salary is not in lowest tax burden country France is due to the high social security contribution and social tax in France.

Same with taxpayer P1, taxpayer P2 bears the most taxes in Belgium, the least taxes in France. The tax burden also increases with salary increase. In Belgium, the tax burden for 0.5 times average wage is about 6.03% and tax burden for 5 times average wage is about 48.47%. In France, 0.5 times average wage taxpayer and average wage taxpayer have zero tax burden. Taxpayer P2 with average salary has highest net salary also in Finland, lowest net salary in Belgium. The reason is same with taxpayer P1.

Taxpayer P3 also pay most tax in Belgium and least tax in France. With salary increase, the tax burden increase, but the speed decrease. The tax burden for 0.5 times average wage in Belgium is zero and tax burden for 5 times average wage is about 44.11%. This decreasing due to tax deductions and personal exemptions for children. taxpayer P1 with 0.5 times average wage and average wage don't have tax burden in France. This is due to the tax credits for children. For taxpayer P3 with average wage, he has highest net salary in Finland and lowest in Austria with 12 months wages. Except the effects of tax deduction and tax credits, the social security contribution in Austria is higher than in Finland. Moreover, low-and medium- income taxpayer can get tax credit in Finland.

Taxpayer P4 is most taxed in Belgium and the least taxed in France. In Belgium, the tax burden for 0.5 times average wage is zero and tax burden for 5 times average wage is about 42.2 %. In France, 0.5 times average wage taxpayers to 2 times average wage taxpayer have zero tax burden. But they need to pay the social security contributions and social tax. Taxpayer P4 has highest net salary in Finland and lowest net salary in Belgium. The four children family can get lots of tax deductions and tax credits in Finland.

Taxpayer P5 is very similar to taxpayer P3. He bears most taxes in Belgium and least tax in France. Taxpayer P5 with average wage also has highest net salary in Finland and lowest in Austria with 12 months wages. The only difference is the tax burden in Belgium, P5 with average wage has less tax burden and more net salary in Belgium than P3.

In general, all taxpayers are taxed most in Belgium and taxed least in France. For taxpayer with average wage, they can get most net salary in Finland, and least salary in Belgium or Austria. For taxpayer with double wage average wage, they can get most net salary in Finland or Germany, and least salary in Belgium or Austria.

5 Conclusion

Tax is a very important tool of every country, and it affects not only the economy of the country, but also the life of each individual. Especially the personal income tax is closely related to each of us.

The goal of this thesis was to compare the personal income tax of selected types of taxpayers in selected countries with focus on income in Austria, Belgium, Finland, France and Germany. Especially considering that these individual taxpayers have different family structures and family situation.

This thesis was divided into five chapters. In chapter 1, we had a brief introduction about this thesis; in chapter 2, we analysed the Basic knowledge of taxation; in chapter 3, we introduced personal income tax in five selected countries; in chapter 4, we calculated the personal income tax of different taxpayers with different income in these five countries and compared the differences. In the following part, we will analyse these chapters specifically below.

Chapter 2 included eight parts. We introduced the history of taxation, the characteristics of taxation, some basic terminologies, tax and fiscal policy, tax principles, the classifications and some basic indicators of tax. Then, we described personal income tax in more detail, which include history of personal income tax, tax subject, tax object and tax base, tax deductions, tax credits, personal income tax rate, the way of calculation and the positives and negatives of personal income tax.

Chapter 3 included five subchapter and it mainly had two parts. First, we described the personal income tax of five countries in detail. These countries are Austria, Belgium, France, Germany and Finland. We mainly described the legislation, tax subject, tax object, tax deductions, tax credits and allowance, tax rate, social security contribution, withholding tax and tax payment. Then we compared the difference of these countries. These five countries differ in tax subject and object, tax deductions, tax credits, social security contributions, tax rates, and tax payments. Some countries also have some special taxes.

Chapter 4 was the calculation and comparison the personal income tax in Austria, Belgium, Finland, France and Germany according to the details mentioned in chapter 3. We had five types taxpayers and also used wage multipliers from 0.5 to 5 to calculate the tax burden in different countries. After calculation, we compared some basic items in different countries which include social security contributions, tax deductions, tax credits, tax liability net salary and tax burden. Last, we mainly focused on the differences in tax burden of these five taxpayers and make a summary.

After calculation, comparison and analysed. We found that for all taxpayer P1 (single person), P2 (single parent with one child), P3 (spouse with 2 children), P4 (spouse with 4 children) and P5 (spouse with 2 children and an old parent), they have highest average tax burden in Belgium and lowest average tax burden in France. At same time they have highest social security contributions in Germany and lowest social security contributions in Finland.

As for net salary, the results are different. Both taxpayer P1 and P2, average salary or double average salary, they have highest net salary in Finland and lowest net salary in Belgium. For taxpayer P3, the average wage P3 has highest net salary in Finland and lowest net salary in Austria with 12 months wages; the double average salary P3 has highest net salary in Germany and lowest net salary in Belgium. For taxpayer P4, the average wage P4 has highest net salary in Finland and lowest net salary in Belgium; the double average salary P4 has highest net salary in Germany and lowest net salary in Austria with 12 months wages. For taxpayer P5, the average wage P5 has highest net salary in Finland and lowest net salary in Austria with 12 months wages; the double average salary P5 has highest net salary in Germany and lowest net salary in Austria with 12 months wages.

The result shows that tax burden, social security contribution and net salary are closely related to the personal situation of the taxpayer (family structure), the amount of wages and the payment way, especially the tax legislation of the taxpayer's country.

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List of Abbreviations

C	coefficient number of coefficient system in France
CRDS	social security deficit contribution
CSG	generalized social contribution
ETR	effective tax rate
EUR	euro
EX	excise tax
GDP	gross domestic product
I	net taxable income
NI	It has not been identified
PIT	personal income tax
SSC	social security contributions
TB	tax base
TL	tax liability
TO	tax object
TQ	tax quota
TS	tax subject
VAT	value added tax

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Students' name and surname

List of Annexes

Annexes

Annexes 1: Tax liability, tax burden and net salary of taxpayers with average wage in five selected countries.

1. Austria (12 months wages) (EUR)

	P1	P2	P3	P4	P5
Wage	44,764	44,764	44,764	44,764	44,764
Social security contributions	8,111	8,111	8,111	8,111	8,111
Additional health insurance for family members	-	1,522	1,522	1,522	1,522
Standard lump-sum deduction for employment expenses	132	132	132	132	132
Personal deductions	60	2,800	3,240	6,420	3,240
(Standard lump-sum deductions for the special expense)	60	60	60	60	60
(Childcare deduction)	-	2,300	2,300	4,600	2,300
(Child tax-free amount)	-	440	880	1,760	880
Tax base	36,461	32,199	31,759	28,579	31,759
Tax liability	8,593	6,802	6,618	5,452	6,618
Tax credit	400	750	1,361	2,996	1,361
(Personal allowance)	400	750	1,276	2,678	1,276
(Transportation credit)	400	400	400	400	400
(Child credit)	-	-	-	-	-
(Child alimony tax credit)	-	350	876	2,278	876
(Family allowance -Children increase)	-	-	85	318	85
Total final tax liability	8,193	6,052	5,256	-	5,256
Net salary	28,460	29,079	29,874	35,131	29,874
Tax burden	18.30%	13.52%	11.74%	-	11.74%

Austria (13 months wages) (EUR)

	P1	P2	P3	P4	P5
Wage	44,764	44,764	44,764	44,764	44,764
12 months wages	41,321	41,321	41,321	41,321	41,321
13rd month wages	3,443	3,443	3,443	3,443	3,443
Social security contributions	7,487	7,487	7,487	7,487	7,487
Additional health insurance for family members	-	117	117	117	117
Standard lump-sum deduction for employment expenses	132	132	132	132	132
Personal deductions	60	2,800	3,240	6,420	3,240
(Standard lump-sum deductions for the special expense)	60	60	60	60	60
(Childcare deduction)	-	2,300	2,300	4,600	2,300
(Child tax-free amount)	-	440	880	1,760	880
12 months wages tax base	33,641	30,784	30,344	27,164	30,344
12 months wages tax liability	7,408	6,224	6,070	4,957	6,070
13rd month tax base	3,443	3,443	3,443	3,443	3,443
13rd month wages tax liability	169	169	169	169	169
Total tax liability	7,578	6,393	6,239	5,126	6,239
Tax credit	400	850	1,461	3,296	1,461
(Personal allowance)	400	750	1,276	2,678	1,276
(Transportation credit)	400	400	400	400	400
(Child credit)	-	-	-	-	-
(Child alimony tax credit)	-	350	876	2,278	876
(Family allowance)	-	100	185	618	185
(Children increase)	-	-	85	318	85
(13rd month children allowance)	-	100	100	300	100
Total final tax liability	7,178	5,543	4,778	-	4,778
Net salary	30,099	31,617	32,382	37,160	32,382
Tax burden	16.03%	12.38%	10.67%	-	10.67%

2. Belgium (EUR)

	P1	P2	P3	P4	P5
Wage	45,830	45,830	45,830	45,830	45,830
Social security contribution	5,990	5,990	5,990	5,990	5,990
Special social security contribution (nondeductible)	421	421	421	421	421
Standard expense deduction	4,810	4,810	4,810	4,810	4,810
Personal deductions (child custody expenses)	-	1,840	1,840	3,679	1,840
Total taxable base after deduction	35,030	33,190	33,190	31,351	33,190
Portion attributed to the spouse	-	-	9,957	9,405	9,957
Portion left to the taxpayer	35,030	33,190	23,233	21,946	23,233
Tax on spouse portion	-	-	2,489	2,351	2,489
Personal exemption on spouse portion	-	-	2,215	2,215	2,215
Tax liability on spouse portion	-	-	274	136	274
Tax on taxpayer portion	12,607	11,779	7,306	10,847	7,306
Personal exemption on taxpayer portion	2,215	2,215	3,438	7,857	3,438
Tax liability on taxpayer portion	10,392	9,564	3,868	2,991	3,868
Total state tax liability	10,392	9,564	4,143	3,127	4,143
Allowance	-	-	-	-	3,160
Total final state tax liability	10,392	9,564	4,143	3,127	983
Regional tax liability	2,595	2,389	1,035	781	245
Total final tax liability	12,987	11,953	5,177	3,908	1,228
Net salary	26,431	27,466	34,241	35,511	38,191
Tax burden	28.34%	26.08%	11.30%	8.53%	2.68%

3. Finland (EUR)

	P1	P2	P3	P4	P5
Wage	38,818	38,818	38,818	38,818	38,818
Social security contribution	3,800	3,800	3,800	3,800	3,800
(Health insurance contribution)	598	598	598	598	598
(Pension income contribution)	2,620	2,620	2,620	2,620	2,620
(Unemployment insurance contribution)	582	582	582	582	582
Lump-sum employment expenses deduction	750	750	750	750	750
Tax base	34,268	34,268	34,268	34,268	34,268
National tax liability	1,893	1,893	1,893	1,893	1,893
Total tax credit	1,540	1,620	1,700	1,860	1,700
(Low-and-medium-income credit)	1,540	1,540	1,540	1,540	1,540
(Child maintenance payment credit)	-	80	160	320	160
Final national tax liability	353	273	193	33	193
Municipal tax liability	341	341	341	341	341
Church tax liability	343	343	343	343	343
TV tax liability	163	163	163	163	163
Total final tax liability	1,200	1,120	1,040	880	1,040
Net salary	33,818	33,898	33,978	34,138	33,978
Tax burden	3.09%	2.88%	2.68%	2.27%	2.68%

4. France (EUR)

	P1	P2	P3	P4	P5
Wage	39,169	39,169	39,169	39,169	39,169
Social tax	3,799	3,799	3,799	3,799	3,799
(CSG)	3,604	3,604	3,604	3,604	3,604
(CRDS)	196	196	196	196	196
(Social levies)	-	-	-	-	-
Social tax deductible	2,663	2,663	2,663	2,663	2,663
Social security contributions	4,759	4,759	4,759	4,759	4,759
(Old age pension)	2,859	2,859	2,859	2,859	2,859
(Unemployment benefits)	372	372	372	372	372
(Supplementary pension)	1,528	1,528	1,528	1,528	1,528
Employment expenses deductions	3,917	3,917	3,917	3,917	3,917
Tax base I	27,830	27,830	27,830	27,830	27,830
Tax base I/C	27,830	13,915	9,277	5,566	9,277
Tax liability	2,642	1,150	-	-	-
Exceptional contribution on high income	-	-	-	-	-
Total tax liability	2,642	1,150	-	-	-
Tax credits (child schooling expenses)	-	153	306	612	306
Additional tax relief	-	1,076	-	-	-
Total final tax liability	2,642	-	-	-	-
Net salary	27,968	30,611	30,611	30,611	30,611
Tax burden	6.75%	-	-	-	-

5. Germany (couple tax separately) (EUR)

	P1	P2	P3	P4	P5
Wage	43,836	43,836	43,836	43,836	43,836
Social security contribution	8,614	8,603	8,603	8,603	8,603
Social security contribution deductions	7,580	7,570	7,570	7,570	7,570
Employment expenses deductions	1,000	1,000	1,000	1,000	1,000
Personal deductions	-	7,620	14,100	26,700	14,100
(Childcare expenses deductions)	-	2,394	4,788	9,576	4,788
(Education expenses deductions)	-	1,320	1,500	1,500	1,500
(Child allowance)	-	3,906	7,812	15,624	7,812
Standard deductions	36	1,944	72	72	72
Tax base	35,220	25,702	21,094	8,494	21,094
Tax liability	5,786	3,505	2,400	-	2,400
Solidarity surcharge	318	193	132	-	132
Tax allowance	-	2,388	4,776	9,996	4,776
Total final tax liability	6,105	1,310	-	-	-
Net salary	29,118	33,924	35,233	35,233	35,233
Tax burden	13.93%	2.99%	-	-	-

Germany (couple tax jointly) (EUR)

	P1	P2	P3	P4	P5
Wage	43,836	43,836	43,836	43,836	43,836
Social security contribution	8,614	8,603	8,603	8,603	8,603
Social security contribution deductions	7,580	7,570	7,570	7,570	7,570
Employment expenses deductions	1,000	1,000	1,000	1,000	1,000
Personal deductions	-	7,620	17,312	33,124	17,312
(Childcare expenses deductions)	-	2,394	8,000	16,000	8,000
(Education expenses deductions)	-	1,320	1,500	1,500	1,500
(Child allowance)	-	3,906	7,812	15,624	7,812
Standard deductions	36	1,944	72	72	72
Tax base	35,220	25,702	17,882	2,070	17,882
Tax liability	5,786	3,505	-	-	-
Solidarity surcharge	318	193	-	-	-
Tax allowance	-	2,388	4,776	9,996	4,776
Total final tax liability	6,105	1,310	-	-	-
Net salary	29,118	33,924	35,233	35,233	35,233
Tax burden	13.93%	2.99%	-	-	-

Annex 2: Tax liability and tax burden of taxpayers with different wage in five selected countries.

1. Austria (12 months wage) (EUR)

Multiplier	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5
TL of P1	1,396	8,193	16,258	26,740	37,692	48,883	60,074	71,265	82,456	93,647
TL of P2	0	6,052	13,798	23,614	34,069	44,879	55,690	66,500	77,311	88,121
TL of P3	0	5,256	13,002	22,792	33,238	44,049	54,859	65,670	76,480	87,291
TL of P4	0	0	10,032	19,631	30,014	40,824	51,635	62,445	73,256	84,066
TL of P5	0	5,256	13,002	22,792	33,238	44,049	54,859	65,670	76,480	87,291
TB of P1	6.24%	18.30%	24.21%	29.87%	33.68%	36.40%	38.34%	39.80%	40.93%	41.84%
TB of P2	0.00%	13.52%	20.55%	26.38%	30.44%	33.42%	35.55%	37.14%	38.38%	39.37%
TB of P3	0.00%	11.74%	19.36%	25.46%	29.70%	32.80%	35.01%	36.68%	37.97%	39.00%
TB of P4	0.00%	0.00%	14.94%	21.93%	26.82%	30.40%	32.96%	34.87%	36.37%	37.56%
TB of P5	0.00%	11.74%	19.36%	25.46%	29.70%	32.80%	35.01%	36.68%	37.97%	39.00%

Austria (13 months wage) (EUR)

Multiplier	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5
TL of P1	1,097	7,178	14,411	23,811	33,867	44,300	54,734	65,167	75,601	86,034
TL of P2	0	5,543	12,736	21,933	31,925	42,304	52,709	63,113	73,517	83,921
TL of P3	0	4,778	12,881	22,186	32,189	42,594	52,998	63,402	73,806	84,210
TL of P4	0	0	10,677	19,929	29,921	40,319	50,723	61,128	71,532	81,936
TL of P5	0	4,778	12,881	22,186	32,189	42,594	52,998	63,402	73,806	84,210
TB of P1	4.90%	16.03%	21.46%	26.60%	30.26%	32.99%	34.93%	36.39%	37.53%	38.44%
TB of P2	0.00%	12.38%	18.97%	24.50%	28.53%	31.50%	33.64%	35.25%	36.50%	37.49%
TB of P3	0.00%	10.67%	19.18%	24.78%	28.76%	31.72%	33.83%	35.41%	36.64%	37.62%
TB of P4	0.00%	0.00%	15.90%	22.26%	26.74%	30.02%	32.38%	34.14%	35.51%	36.61%
TB of P5	0.00%	10.67%	19.18%	24.78%	28.76%	31.72%	33.83%	35.41%	36.64%	37.62%

2. Belgium (EUR)

Multiplier	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5
TL of P1	2,302	12,987	25,094	37,541	49,989	62,436	74,884	87,331	99,779	112,226
TL of P2	1,382	11,953	23,944	36,392	48,839	61,287	73,734	86,182	98,629	111,077
TL of P3	0	5,177	16,230	28,677	41,125	53,572	66,020	78,467	90,915	103,362
TL of P4	0	3,908	9,613	22,005	34,453	46,901	59,348	71,796	84,243	96,691
TL of P5	0	1,228	12,280	24,728	37,175	49,623	62,070	74,518	86,965	99,413
TB of P1	10.05%	28.34%	36.50%	40.96%	43.63%	45.41%	46.68%	47.64%	48.38%	48.98%
TB of P2	6.03%	26.08%	34.83%	39.70%	42.63%	44.58%	45.97%	47.01%	47.82%	48.47%
TB of P3	0.00%	11.30%	23.61%	31.29%	35.89%	38.96%	41.16%	42.80%	44.08%	45.11%
TB of P4	0.00%	8.53%	13.98%	24.01%	30.07%	34.11%	37.00%	39.16%	40.85%	42.20%
TB of P5	0.00%	2.68%	17.86%	26.98%	32.45%	36.09%	38.70%	40.65%	42.17%	43.38%

3. Finland (EUR)

Multiplier	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5
TL of P1	340	1,200	6,869	11,435	17,262	23,894	30,525	37,157	43,788	50,420
TL of P2	260	1,120	6,789	11,355	17,182	23,814	30,445	37,077	43,708	50,340
TL of P3	180	1,040	6,709	11,275	17,102	23,734	30,365	36,997	43,628	50,260
TL of P4	20	880	6,549	11,115	16,942	23,574	30,205	36,837	43,468	50,100
TL of P5	180	1,040	6,709	11,275	17,102	23,734	30,365	36,997	43,628	50,260
TB of P1	1.75%	3.09%	11.80%	14.73%	17.79%	20.52%	22.47%	23.93%	25.07%	25.98%
TB of P2	1.34%	2.88%	11.66%	14.63%	17.71%	20.45%	22.41%	23.88%	25.02%	25.94%
TB of P3	0.93%	2.68%	11.52%	14.52%	17.62%	20.38%	22.35%	23.83%	24.98%	25.89%
TB of P4	0.10%	2.27%	11.25%	14.32%	17.46%	20.24%	22.23%	23.72%	24.88%	25.81%
TB of P5	0.93%	2.68%	11.52%	14.52%	17.62%	20.38%	22.35%	23.83%	24.98%	25.89%

4. France (EUR)

Multiplier	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5
TL of P1	0	2,642	6,919	11,199	15,480	21,110	27,454	34,107	40,827	50,963
TL of P2	0	0	2,993	5,340	9,620	13,900	18,542	23,410	28,327	36,972
TL of P3	0	0	858	3,465	5,462	8,040	12,683	17,550	22,468	29,780
TL of P4	0	0	0	0	2,410	4,408	6,574	8,846	11,140	18,060
TL of P5	0	0	858	3,465	5,462	8,040	12,683	17,550	22,468	29,780
TB of P1	0.00%	6.75%	11.78%	14.30%	15.81%	17.96%	20.03%	21.77%	23.16%	26.02%
TB of P2	0.00%	0.00%	5.09%	6.82%	9.82%	11.83%	13.53%	14.94%	16.07%	18.88%
TB of P3	0.00%	0.00%	1.46%	4.42%	5.58%	6.84%	9.25%	11.20%	12.75%	15.21%
TB of P4	0.00%	0.00%	0.00%	0.00%	2.46%	3.75%	4.80%	5.65%	6.32%	9.22%
TB of P5	0.00%	0.00%	1.46%	4.42%	5.58%	6.84%	9.25%	11.20%	12.75%	15.21%

5. Germany (couple tax separately) (EUR)

Multiplier	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5
TL of P1	1,520	6,105	10,689	18,416	26,449	34,481	42,514	62,741	72,453	82,164
TL of P2	0	1,310	5,895	11,815	19,850	27,884	35,919	56,131	65,843	75,555
TL of P3	0	0	2,342	7,385	15,420	23,455	31,489	51,701	61,413	71,125
TL of P4	0	0	0	0	4,617	12,651	20,686	40,898	50,610	60,322
TL of P5	0	0	2,342	7,385	15,420	23,455	31,489	51,701	61,413	71,125
TB of P1	6.94%	13.93%	16.26%	21.01%	24.13%	26.22%	27.71%	35.78%	36.73%	37.49%
TB of P2	0.00%	2.99%	8.97%	13.48%	18.11%	21.20%	23.41%	32.01%	33.38%	34.47%
TB of P3	0.00%	0.00%	3.56%	8.42%	14.07%	17.84%	20.52%	29.49%	31.13%	32.45%
TB of P4	0.00%	0.00%	0.00%	0.00%	4.21%	9.62%	13.48%	23.32%	25.66%	27.52%
TB of P5	0.00%	0.00%	3.56%	8.42%	14.07%	17.84%	20.52%	29.49%	31.13%	32.45%

Germany (couple tax jointly) (EUR)

Multiplier	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5
TL of P1	1,520	6,105	10,689	18,416	26,449	34,481	42,514	62,741	72,453	82,164
TL of P2	0	1,310	5,895	11,815	19,850	27,884	35,919	56,131	65,843	75,555
TL of P3	0	0	0	3,314	7,899	12,485	17,070	37,024	46,736	56,448
TL of P4	0	0	0	0	0	3,266	7,851	24,798	34,510	44,222
TL of P5	0	0	0	3,314	7,899	12,485	17,070	37,024	46,736	56,448
TB of P1	6.94%	13.93%	16.26%	21.01%	24.13%	26.22%	27.71%	35.78%	36.73%	37.49%
TB of P2	0.00%	2.99%	8.97%	13.48%	18.11%	21.20%	23.41%	32.01%	33.38%	34.47%
TB of P3	0.00%	0.00%	0.00%	3.78%	7.21%	9.49%	11.13%	21.12%	23.69%	25.75%
TB of P4	0.00%	0.00%	0.00%	0.00%	0.00%	2.48%	5.12%	14.14%	17.49%	20.18%
TB of P5	0.00%	0.00%	0.00%	3.78%	7.21%	9.49%	11.13%	21.12%	23.69%	25.75%